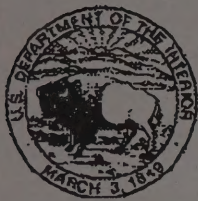




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U.S. Department of the Interior
Bureau of Land Management

Arizona State Office

November 1997



Finding of No Significant Impact and Programmatic Environmental Assessment for:

Selected Actions for Mining Claim and Millsite Use and Occupancy in Arizona



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The Bureau of Land Management is responsible for the balanced management of the public lands and resources and their various values so that they are considered in a combination that will best serve the needs of the American people. Management is based upon the principles of multiple use and sustained yield; a combination of uses that take into account the long term needs of future generations for renewable and nonrenewable resources. These resources include recreation, range, timber, minerals, watershed, fish and wildlife, wilderness and natural, scenic, scientific and cultural values.

BLM/AZ/PL-98/002



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Arizona State Office
222 North Central Avenue
Phoenix, AZ 85004-2203

In reply refer to:

November 18, 1997

Dear Reader:

Enclosed is a Finding of No Significant Impact (FONSI) and the supporting Programmatic Environmental Assessment for Selected Actions for Mining Claim Use and Occupancy in Arizona (EA).

The Proposed Action (PA), consisting of seven "generic occupancy proposals" was analyzed in the EA to assess the direct, indirect and cumulative environmental effects of occupancies associated with existing and future casual use and notice level operations. It also assesses the environmental effects of occupancies associated with previously approved plans of operation.

A Decision Record does not accompany these documents. Decisions will be made on a case-by-case basis by the responsible official working directly with mining claimants. In this way, the Bureau of Land Management (BLM) can maintain the flexibility required to respond to site specific environmental conditions and needs. Qualified individuals may appeal decisions based upon this FONSI and supporting EA on a site- and case-specific basis. Appeals must be filed pursuant to the Code of Federal Regulations, 43 CFR Part 4.

BLM Field Offices will perform the appropriate level of site-specific National Environmental Policy Act (NEPA) analysis and documentation (including the application of categorical exclusions and administrative determinations) for all proposed occupancies under the subject regulations.

If analysis finds that the proposed occupancy would significantly differ from the proposed occupancies listed in the proposed action or that the proposed occupancy might result in impacts not previously addressed, a site-specific EA-level analysis or environmental impact statement-level analysis may be required.

Thank you for participating in this EA. You are encouraged to continue your involvement.

Sincerely,

Denise P. Meridith
State Director

Enclosure

Finding of No Significant Impact (FONSI)

The Bureau of Land Management (BLM) is required by regulations at 43 CFR 3715 to give formal written concurrence to requests made to occupy mining claims and millsites on public lands where BLM administers both the mineral and surface estates. The proposed action would allow the BLM to give concurrence to seven "typical" occupancy scenarios that involve 5 acres of surface disturbance or less.

Rationale for a Finding of No Significant Impact

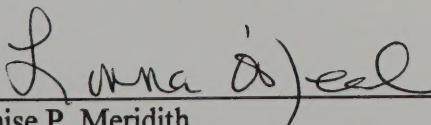
This FONSI is supported by the attached Programmatic Environmental Assessment for Selected Actions for Mining Claim Use and Occupancy in Arizona (EA). The rationale for this determination is as follows:

The proposed action ...

- requires the operator or claimant to comply with the 43 CFR 3715 regulations. These regulations provide greater management control over mining claim use and occupancy than previous management practices and regulations.
- does not have adverse effects to public health and safety or highly controversial environmental effects since major aspects of mining claim use and occupancy would require either permits or approvals from Federal, State, or County agencies. Decisions based on this FONSI would not violate Federal, State, Local, or Tribal law. The operator/claimant would be required to have all necessary permits and approvals before beginning any use or occupancy and all subsequent activities must be conducted in accordance with all applicable laws and regulations.
- does not have significant impacts on unique geographic characteristics. The proposed action specifically excludes requests to occupy mining claims or millsites on areas of critical environmental concern, special recreation management areas, wilderness study areas or designated wilderness areas, Indian Trust lands and wild and scenic river corridors (designated or determined suitable).
- does not have an adverse effect on significant cultural resources and no effect on Threatened and Endangered species (T&E) or their critical habitat. Decisions based on this FONSI require BLM to conduct site-specific and case-specific cultural resource evaluations and wildlife/T&E clearances.
- does not have significant effects on minority or low-income groups. Decisions based on this FONSI would not have disproportionately high and adverse human health or environmental effects on minority and low-income populations.

Determination

On the basis of analysis of potential environmental impacts contained in the attached EA and all other information available to me, it is my determination that the proposed action will not have any significant impacts on the human environment. Therefore, an Environmental Impact Statement is not required.


for Denise P. Meridith
State Director

11/18/97
Date

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Department of the Interior
Bureau of Land Management
Arizona State Office

November 1997

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Need for the Proposal

This document is needed to conform to the following regulations:

- The 43 CFR 3715 regulations, listed in Appendix 1, are referred to throughout this document as the “subject regulations.” Under these regulations, BLM must make a formal decision of concurrence before a proposed occupancy of a mining claim or millsite can begin or continue.

This document analyzes the impacts of approving (granting concurrence with) “typical occupancies” of millsites and mining claims. The proposed action provides a framework that allows most proposals that involve the use and occupancy of mining claims or millsites on Bureau of Land Management (BLM) lands in Arizona to be analyzed in one programmatic Environmental Assessment (EA). If a proposal to occupy a mining claim or millsite conforms to the subject regulations and to the framework of this document, then BLM may allow the proposal without further detailed analysis.

Alternatives Including the Proposed Action

Definitions

From the subject regulations and the 43 CFR 3809 regulations the following definitions apply:

Casual use or casual use activities:

“Activities ordinarily resulting in only negligible disturbance of the Federal lands and resources. For example, activities are generally considered casual use if they do not involve the use of mechanized earth moving equipment or explosives or do not involve the use of motorized vehicles in areas designated as closed to off-road vehicles...” (43 CFR 3809)

Notice or notice level activity:

“All operators on project areas whose operations, including access across Federal lands to the project area, cause a cumulative surface disturbance of 5 acres or less during any calendar year shall notify the authorized officer in the District office of the Bureau of Land Management having jurisdiction over the land in which claim(s) or project area is located.” (43 CFR 3809)

Occupancy:

“Full or part-time residence on the public lands. It also means activities that involve residence; the construction, presence, or maintenance of temporary or permanent structures that may be used for such purposes; or the use of a watchman or caretaker for the purpose of monitoring activities. Residence or structures include, but are not limited to barriers to access, fences, tents, motor homes, trailers, cabins, houses, buildings, and storage of equipment or supplies.” (43 CFR 3715)

Notes on occupancy:

1. Residential occupancy governed by the subject regulations begins whenever a claimant or operator occupies the public lands under the Mining Law for more than 14 days in any 90-day period within a 25-mile radius of the initially occupied site.
2. For operational structures to be considered under these regulations, they must be able to provide shelter in nonemergency situations without significant changes. Items such as tool boxes, fuel tanks, and water tanks typically are operational structures that are not regulated as occupancies that require BLM's formal concurrence. Nevertheless, the use of these structures on mining claims is governed by the subject regulations.

Plan of operations or plan level activity:

"An approved plan of operations is required prior to commencing:

(a) Operations which exceed the disturbance level (5 acres) described in section 3809.1-3 (notice level activities) of this title." (43 CFR 3809)

Substantially Regular Work:

"Means work on, or that substantially benefits, a mineral property, including nearby properties under your control. The work must be associated with the search for and development of mineral deposits or the processing of ores. It included active and continuing exploration, mining, and beneficiation or processing of ores. It may also include assembly or maintenance of equipment, work on physical improvements, and procurement of supplies. It may also include off-site trips associated with these activities. The term also includes a seasonal, but recurring, work program." (43 CFR 3715)

Reasonably Incident:

"The statutory standard "prospecting, mining, or processing operations and uses reasonably incident thereto" (30 U.S.C. 612). It is a shortened version of the statutory standard. It includes those actions or expenditures of labor and resources by a person of ordinary prudence to prospect, explore, define, develop, mine, or beneficiate a valuable mineral deposit, using methods, structures, and equipment appropriate to the terrain, mineral deposit, and stage of development and reasonably related activities." (43 CFR 3715)

Unnecessary or Undue Degradation:

"As applied to unauthorized uses, means those activities that are not reasonably incident and are not authorized under any other applicable law or regulation. As applied to authorized uses, the term is used as defined in 43 CFR 3809.0-5." (43 CFR 3715) Generally, for authorized operations, this means surface disturbance greater than what would normally result when an activity is being accomplished by a prudent operator in usual, customary, and proficient operations of similar character.

Alternative One: The Proposed Action (PA)

The proposed action is concurring with (approving) mining proposals that meet one or more of seven “typical occupancies” or proposed occupancies. The framework of this document consists of the proposed occupancies and associated performance measures that claimants or operators can use for their specific proposals. The performance measures associated with the PA do not constitute a separate regulatory proposal but are merely intended to assist BLM staff with the implementation of the subject regulations. These performance measures have been developed to lessen or prevent (mitigate) environmental impacts caused by the proposed occupancies. The following seven proposed occupancies would be used to evaluate mining claim use and occupancy:

1. Placing on public lands and using operational structures, process buildings, and storage structures needed for mining, milling, and beneficiation in operations for which the Arizona Department of Environmental Quality (ADEQ) has issued an Aquifer Protection Permit (APP).
2. Placing on public lands and using operational structures, process buildings, and storage structures needed for mining, milling, and beneficiation in operations that are either general permitted or exempted from the APP program.
3. Placing on public lands and using residential structures as part of operations that are exempt from the APP program, are general permitted or require an APP issued by ADEQ. These structures include tents, motor homes, campers, trailers, cabins, houses, guard shacks, and any other structures designed for and used as residences.
4. Placing on public lands and using residential septic systems that can be general permitted under the ADEQ APP permit program and meet the requirements of A.A.C. R18-9-126.A. These septic systems operate at less than 2,000 gpd and may include systems for trailers, cabins, houses, guard shacks, and any other structures designed for and used as residences. See Appendix 5 for average daily sewage flows.
5. Placing on public lands and using residential septic systems that operate between 2,000 and 20,000 gpd. These systems may be general permitted under the ADEQ APP permit program if the conditions of either A.A.C. R18-9-126.B or A.A.C. R18-9-126.C are met. Otherwise, ADEQ must issue an APP permit. See Appendix 5 for average daily sewage flows.
6. Placing on public lands and using residential septic systems that operate at greater than 20,000 gpd for which ADEQ has issued an APP permit. See Appendix 5 for average daily sewage flows.
7. Placing on public lands fences, gates, or signs designed to limit public access.

The following are common elements of the seven proposed occupancies:

- Operations are "casual use" or can be conducted under a "notice" or "plan of operation" as required by 43 CFR 3809. For operations conducted under a plan to be eligible, the plan must have been approved before August 15, 1996, and the operator must have qualified for the grace period specified in the subject regulations.
- Operations are conducted on lands within Arizona where BLM administers both the surface and mineral estates.
- Operations are conducted on lands open to mineral entry and mineral development.
- Operations are conducted in accordance with BLM Arizona's approved land use plans.

Excluded from the proposed occupancies are the following:

- Requests to occupy mining claims or millsites on the following restricted lands:
 - Areas of critical environmental concern.
 - Special recreation management areas.
 - Wilderness study areas or designated wilderness areas.
 - Indian Trust lands.
 - Wild and scenic river corridors (designated or determined suitable).

BLM will analyze requests to occupy mining claims or millsites on restricted lands using a separate site-specific NEPA analysis.

BLM will address requests made to occupy mining claims or millsites on Indian Trust lands after consulting with the affected tribe.

- Uses that are reasonably incident and involve occupancy of operations that require BLM to approve or modify a plan of operations under 43 CFR 3809, *on or after August 15, 1996*, the effective date of the subject regulations.

Occupancies that require approval of a plan of operations, after the effective date of the subject regulations, will be addressed concurrently with the environmental analysis required under 43 CFR 3809.

- Uses that are reasonably incident and do not involve occupancy.

Uses that are reasonably incident and do not involve occupancy are governed by the surface management requirements of 43 CFR part 3809 and the subject regulations. However, operations that do not involve occupancy do not require BLM to give concurrence before they begin.

Alternative Two: No Action

The No Action Alternative would not allow any proposed occupancy of a mining claim to occur on public lands administered by the BLM. The No Action Alternative conflicts with the General Mining Laws, the Federal Land Policy and Management Act (FLPMA) of 1976 and the regulations enforcing it (43 CFR 3715 and 43 CFR 3809). In accordance with these laws and regulations, the claimant is granted rights to explore for, extract, and process, subject to regulations, the mineral resource for which he holds claim. The BLM can disallow proposed mining claim occupancies and mineral development activities only if they would violate applicable state and federal regulations and/or BLM standards. In such an instance, the BLM is then required to describe the changes in proposed activities needed to meet the requirements for development.

Information and Processing Procedures Under the Proposed Action

This and the following section present the information and procedures that BLM would use to process requests for mining claim use and occupancy under the proposed action. BLM would use the following information and procedures to determine if the proposed occupancy can be authorized under the subject regulations and, if the proposed occupancy is authorized, what performance measures must be applied to prevent unnecessary or undue degradation.

Information and the 3715 Filing

Under the subject regulations, a claimant or operator must give BLM a written narrative as required by 43 CFR 3715.3-1 (a 3715 filing). See Appendix 3 for a sample 3715 filing. This filing must describe the following:

- How the occupancy will be reasonably incident to prospecting, mining, or processing.
- Information that shows how the proposed activities will be substantially regular.
- A demonstration that the activities will be reasonably calculated to lead to mineral extraction and beneficiation.
- A description of all equipment and supplies to be used and information that shows that the equipment, supplies, and activities proposed are suitable for the property's geological terrain, mineral deposit, and stage of development.
- A map showing where temporary or permanent structures, enclosures, fences, gates, and signs will be located.
- An estimate of the period of use of the structures, enclosures, fences, gates, and signs, as well as the schedule for removal and reclamation when operations end.

Additionally, for **residential occupancy** to begin, the claimant or operator must furnish information that will allow BLM to determine that occupancy is required to:

- Protect exposed, concentrated, or otherwise accessible valuable minerals from theft or loss.

- Protect from theft or loss appropriate operable equipment that is regularly used, is not readily portable, and cannot be protected by means other than occupancy.
- Protect the public from surface uses, workings, or improvements that, if left unattended, create a hazard.
- Allow the mining claimant to remain on site to work a full shift because of the area's isolation or lack of access.

Procedures

Appendix 4 lists several standard operating procedures that BLM Arizona will employ to process 3715 filings. In all cases, processing will involve one or more of the following steps:

Step 1, Reasonably Incident.

BLM would review the 3715 filing with the claimant and, at the discretion of management, inspect the claim or millsite, and/or request more information, including the following:

- Exploration data, including assays, assay procedures, and samples.
- Process flow sheets, including a list of all chemicals to be used together with material safety data sheets and consumption rates.
- A detailed list of all equipment that will be used on the claim with production rates and periods of use.

After reviewing all relevant information and conducting an optional site inspection, BLM will determine if the proposed occupancy is reasonably incident to mining and if residential occupancy can be authorized. BLM will then notify the claimant or operator in writing of this determination. Further analysis, including NEPA analysis, is not required if BLM determines that the proposed occupancy is not reasonably incident.

Step 2, NEPA Analysis.

NEPA analysis for occupancy proposals that are reasonably incident will consist of the following steps.

- BLM will screen proposals to ensure the following:
 - The proposals involve no restricted lands specifically excluded in this EA.
 - The proposals contain the common elements of the proposed action of this EA.
 - The proposals would result only in impacts that have been addressed in this EA.
- If the proposal under analysis fails this preliminary screening, BLM would perform a site-specific analysis. This site-specific analysis may tier to this EA.
 - BLM will notify the claimant in writing of the performance measures that would apply to the proposed occupancy.

When proposed occupancies pass the initial screening, BLM will do the following:

- BLM would review proposals to decide if they contain some or all of the performance measures developed for the proposed action in this EA.
 - ▶ Performance measures are discussed in step three, but briefly they are mitigation measures or practices that apply to the seven proposed occupancies in the proposed action that lessen the impacts of those occupancies. The performance measures will be released to the public, and operators can decide which, if any, they will voluntarily adopt. Any standards voluntarily adopted would speed the processing of a proposal.
 - ▶ BLM would prepare another NEPA analysis of the proposal by analyzing the impacts of the performance measures that were not adopted.
 - Operations that adopt only some performance measures can go on as proposed if, because of site-specific engineering controls or mitigating measures such as topography or geology, analysis finds no more impacts.
 - If impacts result from failing to adopt all of the performance measures, as a condition of concurrence BLM may impose site-specific performance measures or the standards not voluntarily adopted.
- Before authorizing surface disturbance, BLM would inventory and evaluate all areas to be disturbed or affected for wildlife, vegetation, and cultural resources.
 - ▶ BLM will request information from the Arizona Game and Fish Department's Heritage Data Management System to determine whether any special status species are known to occur in the area. When conditions warrant, BLM will confer with the Arizona Game and Fish Department on the effects the proposed occupancies will have on wildlife resources.
 - ▶ If the biological evaluation reveals that the proposed occupancy may affect threatened or endangered species or designated or proposed critical habitat, BLM will conduct Section 7 consultation/conferencing with the Fish and Wildlife Service before authorizing any activity.
 - ▶ BLM must consult with the State Historic Preservation Officer (SHPO) when potentially significant historical, archeological, or other cultural resources could be affected by the proposed development.
- Operations that use all of the performance measures and conform to the typical operations analyzed in this EA may be processed using an administrative determination.
 - ▶ BLM makes an administrative determination that the NEPA documentation previously prepared (this EA) fully covers the site-specific proposal and no more analysis is needed.
 - ▶ Administrative determinations would be used where analysis shows that the proposed occupancy conforms to the proposed action and all impacts involved are addressed in this EA.
 - ▶ BLM will notify the claimant in writing of the performance measures that apply to the proposed occupancy.

Step 3, Development of Performance Measures.

All performance measures are developed to eliminate unnecessary or undue impacts to the resource base. A complete list of the performance measures is in Appendix 4. These standards were developed from the following management principles:

- BLM will strive wherever possible to allow the proposed use and occupancy while maintaining the smallest area of surface disturbance for the shortest time.
- Temporary structures such as tents, campers, or trailer homes would be encouraged over the use of permanent structures such as buildings, homes, or cabins.
- BLM would encourage the use of flat-lying areas with low erosion potential as the preferred site for all facilities.
- All operations must be kept clean and free of debris and must provide a safe environment for mine employees and other public land users. All operations must strictly adhere to all applicable Occupational Safety and Health Administration (OSHA), Mine Safety and Health Administration (MSHA) regulations, and the Arizona Mining Code administered by the Arizona State Mine Inspector (SMI).
- Chemical and fuel storage facilities on public lands must be used to store only those chemicals and fuels essential for mining, milling, and processing.
- BLM would try to keep the public lands open to public entry but may restrict or close access to mines to ensure public safety and site security.
- All land would be reclaimed according to the BLM Solid Mineral Reclamation Handbook (H-3042-1).

In General:

When practical, BLM would encourage the use of a single structure to store compatible chemicals and equipment or supplies rather than several small outlying structures.

All structures used or occupied by a mining claimant must be noted in the 3715 filing. Structures that existed before the subject regulations may become, at the discretion of management, the property of the United States if not claimed on a 3715 filing.

The amount of chemicals and fuels to be stored would not exceed that needed to supply the operation. All chemical containers will be labeled, and all buildings and transportation vehicles will be placarded. All placards, labels, and containers must conform to Department of

Transportation standards. Operators must submit a complete list of all the chemicals they plan to store on their claims or millsites with material safety data sheets. Through its inspection program, BLM will monitor operations to see that only essential chemicals, in suitable amounts, are stored on site. Incompatible chemicals must be protected from each other and stored so as not to present a hazard.

BLM would consult with the claimant or operator to ensure that no more people are residing (making a home) on a mining claim or millsite than are needed for mining, milling, and site security. In response to this consultation and the later environmental analysis, BLM will specify the maximum people, including family members, who can live on the claim for more than 14 days in any 90-day period.

Where public health and safety are a primary concern or access must be limited to protect valuable mining equipment and supplies from theft or loss, BLM would authorize the placing of fences, gates, and signs on public lands to limit public access. BLM may also close the lands to public entry using the procedures specified by 43 CFR 8364.

If a claimant or operator is ordered to build and maintain fenced enclosures or to post signs by either MSHA, OSHA, or the SMI, the claimant must give BLM written proof of such an order before BLM authorizes construction. This restriction would not apply to signs that are informational or limit access to buildings or process facilities but does apply to signs that limit access to the public lands such as "No Trespassing." All fences and gates would be built to protect livestock and wildlife. Specifications for fences and gates will be developed on a site-specific basis with information from BLM's site-specific biological investigation. Minimum requirements for fences are in BLM Manual Handbook H-1741-1, Fencing.

BLM would require the claimant or operator to post public directions on fences or gates showing routes to public lands around or behind the enclosed area. The Field Manager will decide the nature of the posting on a case-by-case basis. Whenever locked gates are used, the claimant or operator would be required to give BLM a key or use a system of double locks.

The subject regulations require claimants or operators to submit a reclamation schedule. The regulations also require that at the end of the use or occupancy all permanent and temporary structures, material, equipment, or other personal property on the public lands must be removed. In addition, regulations at 43 CFR 3809.1-1, require that all operations be reclaimed. Reclaiming occupancy sites will include removing all structures; regrading; replacing topsoil or growth medium; and establishing a diverse, effective, and permanent vegetation cover to reflect the post-mining land use.

If an operator or claimant claims the right to possess and use a pre-existing building on a claim and if BLM determines that this structure is historically significant, BLM may require the operator or claimant to restore the structure to its condition prior to the use or occupancy.

Step 4, Required Permits and Financial Guarantees.

The regulations require operators to have in hand all needed permits before operations begin. All occupancies and/or operations must conform to Federal and State environmental standards and, when required, operators must post a financial guarantee before surface disturbance begins.

At the discretion of the Field Manager, BLM may require the operator or claimant to prove that all needed permits have been issued before concurring with the occupancy proposal and any time after operations begin. Generally, BLM will not require a claimant or operator to prove these permits have been issued. But, Arizona BLM will require the claimant or operator to show the permits required by the Environmental Protection Agency (EPA) under the National Pollution Discharge Elimination System (NPDES) and by ADEQ under the Aquifer Protection Program (APP). In addition, Arizona BLM will require the claimant or operator to contact the Mine Safety and Health Administration and the Arizona State Mine Inspector before beginning operations.

The following list includes the facilities and systems that must be permitted under the NPDES program as well as those that can be exempted. The claimant or operator must review this list and determine if any of the processes or facilities fit into a category that must be permitted under NPDES. If the claimant or operator's proposed processes or facilities appear to need an NPDES permit, the claimant must contact the EPA Region IX, Chief of the NPDES Permits Office. The EPA will then decide if the claimant needs an NPDES permit. The operator or claimant must inform BLM as to whether an NPDES permit will be required for the proposed facilities or operations. If EPA determines that a permit is needed, the operator or claimant must submit a copy of the NPDES application and a copy of the final permit to BLM.

An NPDES permit is needed for the following facilities:

- Any point-source discharge associated with industrial activity.

Generally an NPDES permit is needed for:

- Process related discharges.
- Discharges of mine drainage as described in 40 CFR 440.
- Storm water runoff not meeting the definition of mine drainage which contacts any overburden, raw material, intermediate products, finished products, byproducts or waste product at a site.
- Storm water runoff from construction sites disturbing 5 or more acres.

EPA regulations at 40 CFR 440 set effluent limitations (numeric values that cannot be exceeded) for process related discharges and mine drainage. Facilities subject to these effluent limitations are permitted on an individual basis.

Storm water discharges may be covered under a general NPDES permit. The general permit

requires the submittal of a notice of intent and the implementation of a storm water pollution prevention plan to control pollutants in the discharges.

Construction activities under 5 acres are exempt from the NPDES process but mining activities are not exempt. Runoff from construction activity disturbing 5 or more acres is permitted under a separate general permit specifically for construction projects. In Arizona, BLM will require any claimant/operator, before beginning operations, to contact EPA for either an NPDES permit, a general permit for construction projects or an affirmation from the EPA, in writing, that no permit is needed if the operation will:

- engage in activities involving mining, milling, any kind of mineral processing and/or facility construction or maintenance.
- engage in exploration activities that involve bulk sampling techniques and/or the construction or maintenance of permanent structures or facilities.
- engage in exploration activities involving occupancy that do not involve the construction of permanent structures or facilities but have 5 acres (or more in the case of plans of operation) of unreclaimed disturbance (including access roads).

It is always the claimant/operators responsibility to obtain all necessary NPDES permits. However, Arizona BLM **will not** require a claimant/operator to show these permits have been issued before beginning operations when:

- the operations are purely exploration.
and
- the operations do not involve the construction or maintenance of permanent structures or bulk sampling.
and
- the operations involve less than 5 acres of surface disturbance, including access.

For further information regarding NPDES permits, the claimant/operator should contact Terry Oda, Chief of the NPDES Permits Office (415-744-1923), Laura Gentile, NPDES mining permits (415-744-1913) or Eugene Bromley, Storm water (415-744-1906)

The following lists include the facilities, processes, and septic systems that must be permitted under an individual APP permit as well as those that can be exempted or general permitted under APP. The claimant or operator must review these lists and determine if any of the processes or facilities fit into a category that must be permitted under an individual APP permit. If the claimant or operator's proposed processes or facilities appear to need an individual APP permit, the claimant must contact the ADEQ APP permits section. The ADEQ APP permits section will then decide if the claimant needs to submit either an APP "determination of applicability" form or an APP application. The operator or claimant must inform BLM as to whether an individual APP

permit will be required for the proposed facilities or operations. If ADEQ determines that an individual APP permit is needed, the operator or claimant must submit a copy of the APP application to BLM. For further information contact:

Arizona Department of Environmental Quality
APP Mining Unit
Water Permits Section
3033 N. Central Ave.
Phoenix, AZ.. 80012
ph (602) 207-4692

An individual or area-wide APP permit is needed for the following facilities:

- Surface impoundments including holding, storage settling, treatment or disposal pits, ponds and lagoons.
- Solid waste disposal facilities.
- Injection wells.
- Land treatment facilities.
- Facilities that add a pollutant to a salt dome formation, salt bed formation, dry well, or underground cave or mine.
- Mine tailing piles and ponds.
- Mine leaching operations.
- Septic tank systems with a capacity of greater than 20,000 gallons per day.
- Septic tank systems that have a capacity of between 2,000 and 20,000 gallons per day and do not meet the requirements of either A.A.C. R18-9-126.B or A.A.C. R18-9-126.C.
- Point source discharges to navigable waters.

The following facilities and operations may be general permitted under the APP program:

- Stormwater impoundments that are regulated under an individual National Pollutant Discharge Elimination System (NPDES) permit or a general stormwater NPDES permit.
- Discharge of wash water from sand and gravel operations or placer mining operations if only physical processes are employed and no hazardous substances, other than those naturally occurring, have been added or exposed during the operation.
- Septic systems that operate at less than 2,000 gpd.
- Septic systems that operate between 2,000 gpd and 20,000 gpd and that have been reviewed by the ADEQ APP permits section and meet the conditions of either A.A.C. R18-9-126.B or A.A.C. R18-9-126.C.

The facilities that are exempt from the APP program are listed in the Arizona Revised Statutes (A.R.S.) 49-250.B as follows:

- Household and domestic activities.

- Household gardening and watering activities.
- Noncommercial use of consumer products generally available to the public.
- Ponds for watering livestock and wildlife.
- Mining overburden returned to the excavation site, including any common material that has been excavated and removed from the excavation site and has not been subjected to any chemical or leaching agent or process of any kind.
- Leachate resulting from the direct, natural infiltration of precipitation through undisturbed regolith or bedrock if pollutants are not added to the leachate as a result of any material or activity placed or conducted by man on the ground surface.
- Facilities that have ceased operation prior to before January 1, 1986.
- Storage, treatment, or disposal of inert material, i.e., broken concrete, asphaltic pavement, manufactured asbestos-containing products, brick, rock, gravel, soil, and materials that, when subjected to a water leach test that is designed to approximate natural infiltrating waters, will not leach substances in concentrations that exceed numeric aquifer quality standards.
- Structures that are designed and constructed not to discharge, which and that are built on an impermeable barrier that can be visually inspected for leakage.
- Pipelines and tanks designed, constructed, operated, and regularly maintained so as not to discharge.
- Surface impoundments for the containment of uncontaminated stormwater, except for stormwater impoundments that are regulated under an NPDES permit and to which a general permit under APP applies.

As required by Titles 18 and 27 of the Arizona Administrative Code, the claimant or operator must submit a "Notice of Start-up, Move, or Stop for Portable Equipment and Mine Operations" whenever operations begin, move, or are suspended. The operator must forward to BLM a copy of the written notification from the Arizona State Mine Inspector that this form was received. For copies of this form contact the ASMI at:

Arizona State Mine Inspector
1700 W. Washington, Suite 400
Phoenix, AZ. 85007
ph. (602) 542-5971

In addition, operators must submit to the Mine Safety and Health Administration (MSHA) form 2000-7. This form establishes, for agency purposes, the legal identity of the operator. The operator/claimant must also file a "start-up notice" with MSHA. This is an informal letter that is filed with MSHA to notify the agency that operations will begin. After operations start, operators must have on-site, at all times, a copy of their 2000-7 form together with their 7 digit MSHA number and copies of the quarterly report, form 7000-2. Copies of the necessary forms are available on a limited basis at some BLM offices, but are always available from MSHA. For additional information or copies of the necessary forms contact MSHA directly at:

U.S. Department of Labor
Mine Safety and Health Administration
63 E. Main, Suite 303
Mesa, AZ. 85201
ph. (602) 649-5452

MSHA generally does not require an operator/claimant to establish a legal identity (submit form 2000-7) or submit a start-up notice when:

- Operation involve only exploration activities in abandoned or inactive mines, such as geologic mapping, chip or channel sampling and long-hole drilling. If it is necessary to begin the rehabilitation of mine workings, such as roads, mine structures or timbering, to perform exploration activities, then the submission of form 2000-7 and a start-up notice is required. In these cases, contact MSHA for further guidance.
- Operations are primarily recreational such as prospecting clubs or other organizations that derive their profits and/or revenues from dues and fees that are largely independent of the extraction, processing or sale of mineral commodities.

If an operator or claimant stops an operation, moves an operation, or permanently closes it, the operator or claimant must notify MSHA and ASMI of the intent to close or move the operation and ADEQ if the operation is regulated under the APP program.

Operators or claimants who conduct operations under a notice must give BLM a certification, as required by 43 CFR 3809.1-9, that a financial guarantee exists to ensure reclamation. At any time BLM may ask the notice-level operator or claimant to show the existence of this guarantee. Before agreeing to allow an operation to proceed, BLM Arizona will require the operator or claimant to show the existence of this guarantee when proposed operations involve residential occupancy (making a home) or leaching operations. A copy of the regulations in 43 CFR 3809.1-9 is contained in Appendix 2.

Step 5, Once Occupancies or Uses Begin.

When BLM concurs with an occupancy, the written concurrence must be kept on the mine property and shown to any BLM employee asking to see it.

BLM will use the Compliance Assessment - Safety, Health, and the Environment Protocol Manual for the Bureau of Land Management and the Safety and Health Management BLM Manual Handbook (H1112-1) as guidelines for inspecting facilities on a mining claim. BLM uses these manuals to inspect its operations and facilities. These documents are reference guides and do not apply requirements above those found in the regulations.

If during inspections, BLM discovers that operations or facilities are not maintained or operated

according to regulations or if reasonably incident activities cease and BLM inspections reveal that observable on-the-ground activities have stopped, BLM will employ the enforcement actions in 43 CFR 3715.7-1.

Requirements for Further Environmental Analysis

This is a programmatic document for managing the use and occupancy of public lands in Arizona. BLM field offices will perform the suitable level of site-specific NEPA analysis and documentation (including applying categorical exclusions and administrative determinations) for all proposed occupancies under the subject regulations.

If analysis finds that the proposed occupancy would significantly differ from the proposed occupancies listed in the proposed action or that the proposed occupancy might result in impacts not previously addressed, a site-specific EA-level analysis or environmental impact statement-level analysis may be required.

Interrelationships

The nature of today's mining industry makes it essential for BLM to coordinate its surface management with other government agencies responsible for permitting portions of these operations. This section describes major interrelationships in the use and occupancy of mining claims and millsites in Arizona.

Federal Government

The Army Corps of Engineers (Corps) evaluates potential effects of materials placed into or removed from jurisdictional wetlands or waters of the United States. The Corps may conduct a jurisdictional delineation to decide if the proposed mining claim use and occupancy are affected by guidelines to determine compliance with Section 404 of the Clean Water Act. Mining under the subject regulations must comply with the Clean Water Act. For information on Section 404 permits contact:

U.S. Army Corp of Engineers
Regulatory Section
3636 N. Central Avenue, Suite 760
Phoenix, AZ. 85012-1936
ph (602) 640-5385

The U.S. Fish and Wildlife Service (USFWS) administers the Endangered Species Act. If threatened or endangered species, proposed species, or designated or proposed critical habitat could be affected by the proposed use or occupancy, BLM would prepare a biological assessment based on the information from the wildlife analysis, and enter into Section 7 consultation with USFWS. After the biological assessment is submitted, USFWS would prepare a biological opinion addressing project impacts and any cumulative impacts from other activities in the same

area. BLM will incorporate the findings of the biological opinion in determining how the proposed occupancy may occur. The proposed use and occupancy could not proceed if the proposal as mitigated would jeopardize the existence of a threatened or endangered species or harm critical habitat.

The EPA administers the NPDES program in Arizona. Developed as part of the Clean Water Act, this program requires industries that have point-source discharges or storm water discharges into surface waters of the U.S. to obtain a general permit. In Arizona, a non-delegated state, these permits are issued by EPA's Region IX office in San Francisco. Storm water provisions include monitoring and reporting and practices to prevent storm water pollution. Construction activities under 5 acres are exempt from the NPDES process, but mining activities under 5 acres are not exempt.

The EPA also issues class III permits under the Underground Injection Control Program (UIC) for commercial mining operations in Arizona. A Federal UIC permit may be required if an operation injects any fluids into the ground through a well. Legal requirements governing construction, operation, and closure of injection wells are documented in detail in UIC regulations at 40 CFR 144, and 146.

Regulations to protect worker health and safety are set forth by MSHA and the Occupational Safety and Health Administration (OSHA). MSHA regulations cover the major aspects of mining and milling. The regulatory and jurisdictional relationship between OSHA and MSHA is very complex. In 1979, the two agencies prepared an interagency agreement to determine general jurisdictional questions and provide for coordination between OSHA and MSHA in all areas of mutual interest. A complete copy of this agreement is provided in Appendix 7.

The subject regulations do not apply to U.S.D.A. Forest Service or National Park Service lands. The participation of these agencies in use and occupancy cases under the subject regulations would be limited.

State Governments

Arizona does not have a formal mine permitting process that includes analysis of proposed mining and reclamation. The state regulatory agencies responsible for mining-related permits or approvals are the Arizona Department of Environmental Quality (ADEQ), Arizona Department of Water Resources (ADWR), and the Arizona State Mine Inspector (SMI).

The Office of Air Quality (OAQ) within ADEQ has jurisdiction over air quality aspects of mining and requires air quality permits in order to build and operate mines and processing equipment. Typically, the air pollution permit process includes evaluation of the type of mining and processing equipment to be used, engineering plans of operation, mineralogical composition of the ore, and calculations of all sources of emissions. Permitting will involve estimating emissions and analyzing the control technology to be used at emission points. Written into the project permit

will be operating conditions that will describe allowed operations.

Groundwater quality in Arizona is regulated by the Arizona Department of Environmental Quality (ADEQ). Mines or mills that could contaminate groundwater must obtain an aquifer protection permit (APP) from ADEQ. An APP typically specifies the design, operation, monitoring, closure, and reclamation of the mine and its facilities. Engineering controls on facilities to contain process solutions and minimize impacts on ground water are given by ADEQ's guidelines for Best Available Demonstrated Control Technologies (BADCT). These controls are outlined in the Arizona Mining BADCT Guidance Manual.

All wells drilled for water supply, ground water characterization, or ground water monitoring are permitted with ADWR. These wells must be built and decommissioned according to ADWR guidelines. In addition, ADWR has permitting authority for water retention structures over a given capacity.

Mines must comply with the Arizona Mining Code, whose requirements are separate from those of MSHA. The Arizona State Mine Inspector enforces these regulations.

BLM Arizona will require that all facilities meet the minimum State Fire Code that has been adopted by the State of Arizona. BLM Arizona will work with the State Fire Marshal for guidance and expertise for this requirement.

BLM must consult with the State Historic Preservation Officer (SHPO) when potentially significant historical, archeological, or other cultural resources could be affected by proposed development. Under Section 106 of the National Historic Preservation Act, potential impacts to cultural resources within the area of potential effect must be evaluated for all proposed uses and occupancies. BLM would consult with the SHPO to develop protection or data recovery plans for cultural properties listed on or determined eligible for nomination to the National Register of Historic Places.

The Arizona Game and Fish Department (AGFD) has management authority and responsibility for all resident fish and wildlife on BLM lands in Arizona. AGFD has co-management responsibility with the United States Fish and Wildlife Service for migratory birds and species listed as threatened and endangered under the Endangered Species Act. BLM will request information from the Arizona Game and Fish Department's Heritage Data Management System to determine whether any special status species are known to occur in the area. The Department is recognized as an important source of information in the development of mitigation plans designed to minimize impacts to wildlife resources.

Local Governments

County governments have review and approval authority over some aspects of mining claim and millsite use and occupancies. This authority includes flood control, air quality, and septic systems.

According to Executive Order 11-988, all federally funded projects or private projects on federal lands must use proper floodplain management techniques. The authority to ensure that suitable techniques are employed has been delegated to county flood control districts. Mines proposed for floodplains must be reviewed by the flood district. Operations allowed will be notified in writing that the mode of operation proposed is not detrimental or incompatible with local flood control regulations.

In Arizona, three counties—Maricopa, Pima, and Pinal—issue air quality permits for mining. ADEQ regulates mining in all other counties.

In Maricopa County, the Maricopa County Environmental Services Department issues air quality permits for mining. These permits govern dust and pollutant emissions.

In Pima County, ADEQ regulates air quality for a few mines. Air quality issues for all remaining mines are regulated by the Pima Department of Environmental Quality (PDEQ). Operations are never regulated by both ADEQ and PDEQ. Operators or claimants proposing new mines in Pima County must consult with PDEQ for further guidance.

In Pinal County, air quality issues are regulated by the Pinal Air Quality Control District (PAQCD). Pinal County requires an industrial air permit for sources that could emit more than 1 ton-per-year of any regulated pollutant. For example, a 5 KW diesel-fired generator or virtually any type or crushing or screening operation normally requires a permit.

Septic permits are issued by counties in Arizona for septic systems operated within their jurisdiction, including those on federal lands. Usually the permit issued is a septic permit, but Maricopa County refers to its septic permit as an on-site waste water permit. All sewer systems except those that are fully contained must have a permit.

Arizona statute ARS 11-830 excludes mines from county building codes if the use or occupancy involves a commercial tract of 5 acres or more. Although most small mines disturb fewer than 5 acres, the practice of county governments in Arizona is to view mining claims as 20-acre tracts that are exempt under ARS 11-830.

Description of the Affected Environment

This section provides a basis for assessing the impacts of the alternatives. Information is presented commensurate with the importance of impacts. Less important material is summarized or referenced. More detailed descriptions of the affected environment are presented in local land use plans, which can be inspected at BLM field offices.

Physical Setting

The area of analysis is the State of Arizona. Arizona is divided into three physiographic provinces: the Colorado Plateau province in the northeast, the Transition Zone in the center, and the Basin and Range province in the south to the border with Mexico.

The Colorado Plateau province has high, rolling desert grasslands, with scattered stands of juniper. Elevations range from 4,840 feet at Winslow to 6,964 feet at Springerville. Temperature maximums average 70.6°F at Winslow and 65.8°F at Springerville with minimums averaging 39.9°F and 31.5°F respectively. Average precipitation is 7.3" at Winslow and 12.1" at Springerville. Of this precipitation, 65 percent falls from May to October.

The Transition Zone trends northwest, and its northern boundary with the Colorado Plateau is the Mogollon Escarpment. Its southern boundary with the Basin and Range province is marked by the interface of the extensive bedrock exposures with extensive low-elevation alluvial desert basins or valleys. The Transition Zone covers 18,000 square miles, or about 16 percent of Arizona. The highest point in this zone is Mazatzal Peak at 7,888 feet, and its lowest point is 1,500 feet near the confluence of the Verde and Salt Rivers (Peirce 1985).

The Basin and Range province is generally described as having gently sloping valleys separated by abruptly rising mountains. The climate is semi-arid with precipitation in the mountains ranging from 20-22" to less than 10" at lower elevations. Roughly one-fourth of the precipitation falls in winter; the other three-fourths falls in late summer. The average minimum temperature is 36.8°F in Prescott and 53.4°F in Casa Grande. The average maximum temperature is 69.1°F in Prescott and 86.6°F in Casa Grande. Average precipitation is 18.1" at Prescott and 8.1" at Casa Grande.

Geology and Mining

With more than 400 known mining districts, Arizona set a record in copper production in 1995, producing 1.3 million tons valued at more than \$3.6 billion. Arizona continues to lead the nation in copper production and also in total nonfuel mineral production. The value of all mineral output was \$4.48 billion, an increase of 24 percent over the previous year. Arizona also leads, or is among the leaders, in producing gemstones, molybdenum, silver, and perlite (DMMR, 1997).

Excluding sand and gravel operations, 113 active mines in Arizona produce the above commodities plus metals and 18 varieties of industrial minerals. The mining industry employs more than 18,000 people. Within Arizona (federal, state, and private lands), there are 4 cement and lime producers, 17 copper producers, 1 diatomite producer, 3 gemstone producers, 17 gold and silver producers, 6 gypsum producers, 5 limestone/marble producers, 5 molybdenum producers, 1 perlite producer, 2 pigment producers, 1 salt producer, 4 silica flux producers, 2 custom mills, and 3 smelters (DMMR, 1997).

Soils

The soils in the area range from very shallow (less than 10") to greater than 60" in depth and are derived from a variety of parent materials. The highly diverse parent materials, topography, and climates have created soils with a wide range in major soil characteristics. Soil textures vary from sand, and sandy loam in areas of granite and sandstone parent materials to clay-dominated textures in areas of volcanic parent materials. Most soils have a high erosion potential when disturbed. At higher elevations, vegetation is the main factor in controlling erosion. At lower elevations, vegetation and desert pavement are the controlling factors.

Water Resources

Surface Water:

The climate of Arizona is arid to semi-arid. As a result, few large rivers in the state flow year round. The largest of those rivers is the Colorado River, which forms the border between Arizona and California. Three major river systems in Arizona flow into the Colorado River: the Little Colorado River, the Bill Williams River, and the Gila River. These three river systems drain most of Arizona. Figure 1 shows the following:

- Many of the headwaters of the three major river systems that flow into the Colorado River originate in the mountains of central Arizona, which is part of the Transition Zone physiographic province. The Mogollon Rim, a northwest-trending escarpment, is the main topographic feature of this province. Streams draining from the north side of the Mogollon Rim are part of the Colorado River drainage system; streams draining from the south side of the Rim are part of the Gila River drainage system.
- The Little Colorado River and its tributaries drain most of the northeast corner of the state. Major streams that flow into the Little Colorado River include Silver Creek, the Puerco River, and Chevelon Creek.
- The Bill Williams River drains west-central Arizona. The two major rivers flow into the Bill Williams River: the Big Sandy and the Santa Maria.
- The Gila River and its tributaries drain most of central and southern Arizona. Major streams include the San Francisco River, Eagle Creek, San Simon River, San Pedro River, Verde River, Salt River, Agua Fria River, and Hassayampa River.
- Several large streams are not part of the Little Colorado, Bill Williams, or Gila River drainage systems. For example, a section of the Virgin River passes through the northwest corner of Arizona before entering Lake Mead.
- Dams form two large reservoirs on the Colorado River: Lake Mead and Lake Powell.

The three major river systems described above all contain BLM-managed public land. The most common uses of surface water on this land consist of livestock watering, recreation, mining, and maintenance of riparian areas.

Figure 1, Surface Water Map of Arizona

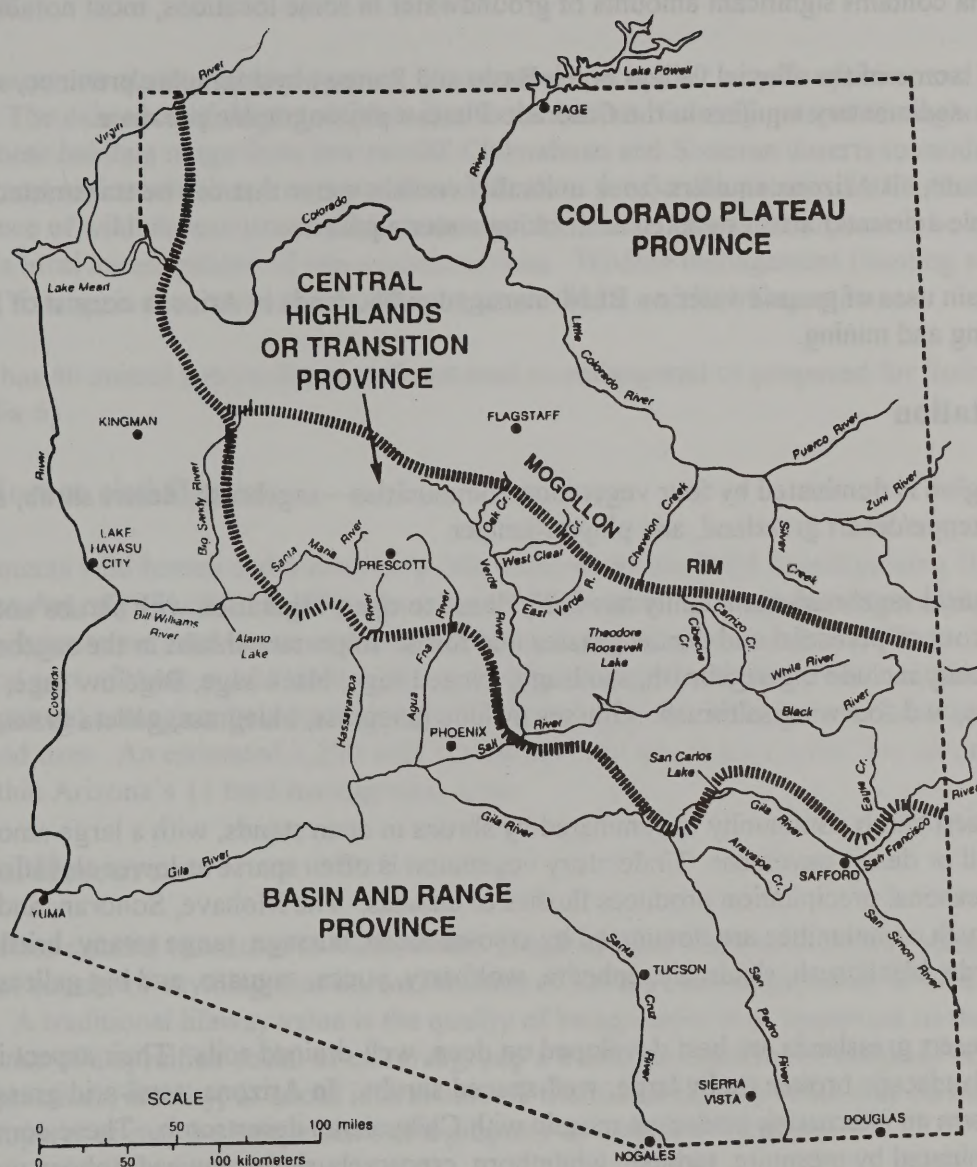


FIGURE 1. Physiographic Provinces and Major Streams of Arizona.

Groundwater:

Arizona contains significant amounts of groundwater in some locations, most notably in

- some of the alluvial valleys in the Basin and Range physiographic province, and
- sedimentary aquifers in the Colorado Plateau physiographic province.

By statute, all Arizona aquifers (rock units that contain water that can be transmitted to wells in usable amounts) are designated as drinking water aquifers.

The main uses of groundwater on BLM-managed public lands in Arizona consist of livestock watering and mining.

Vegetation

The region is dominated by four vegetation communities—sagebrush, desert shrub, southwest shrubsteppe/desert grassland, and pinyon-juniper.

The typical sagebrush community has fairly dense to open vegetation with shrubs and an understory of perennial and annual grasses and forbs. Important shrubs in the sagebrush community include big sagebrush, sandsage, fringed sage, black sage, Bigelow sage, ephedra, cliffrose, and fourwing saltbrush. Grasses include junegrass, bluegrass, galleta grass, and sacaton.

The desert shrub community is dominated by shrubs in open stands, with a large amount of bare soil or desert pavement. Understory vegetation is often sparse at lower elevations except when seasonal precipitation produces flushes of annuals. The Mohave, Sonoran, and blackbrush communities are dominated by creosotebush, bursage, range ratany, brittlebush, paloverde, blackbrush, shadscale, ephedra, wolfberry, yucca, saguaro, and big galleta grass.

Semi-desert grasslands are best developed on deep, well-drained soils. Their aspect is a grassy landscape broken up by large, well-spaced shrubs. In Arizona, semi-arid grasslands often form an alternating landscape mosaic with Chihuahuan desertscrub. These communities are dominated by mesquite, tarbush, whitethorn, creosotebush, burroweed, tobosa grass, grama grass, galleta grass, Indian ricegrass, squirreltail, and Russian wildrye.

The pinyon-juniper vegetation type grows at mid-elevations on mountain slopes. It is a cold-adapted evergreen woodland with the unequal dominance of two conifers—juniper and pinyon pine. The trees may present a closed canopy without understory vegetation, or the community may appear as an open stand of scattered trees with a diverse and well-developed understory. The associated species include Utah juniper, one-seed juniper, pinyon pine, sagebrush, cliffrose, blue grama, galleta grass, Indian ricegrass, squirreltail, and ring muhly.

Arizona has 18 plant species that are listed as threatened or that are proposed for listing. (Appendix 6)

Wildlife

Arizona supports about 400 bird species, 80 mammal species, 60 herptile species, and 40 fish species. The existence of these species is due to the habitat diversity present throughout the state. These habitats range from low rainfall Chihuahuan and Sonoran deserts to moderate rainfall areas and mountainous regions. It is difficult to predict the nature, distribution, and significance of wildlife resources at this programmatic level. These resources will be assessed in BLM's local investigations of site-specific actions. Wildlife management (hunting seasons, trapping, fishing) is the responsibility of the Arizona Game and Fish Department.

Arizona has 40 animal species listed as threatened or endangered or proposed for listing. (Appendix 6)

Wild Horses and Burros

BLM protects wild horses and burros on public lands under the Wild Free-Roaming Horse and Burro Act of 1971 (PL 92-195). As such, BLM protects these equines from capture, branding, harassment, and death, and they are to be managed where presently found (1971) as an integral part of those public lands. They are to be managed to achieve and maintain a thriving natural ecological balance on the public lands and in a coexistent state with other public land uses. An estimated 3,200 wild burros and 180 wild horses roam free on public lands within Arizona's 11 herd management areas.

Cultural Resources

BLM defines cultural resources to include both properties and traditional lifeway values. Properties consist of anything that shows evidence of having been made, used, or altered by humans. A traditional lifeway value is the quality of being useful in or important to the maintenance of a specified social or cultural group's traditional systems of religious belief, cultural practices, identity, or social interaction. A traditional lifeway value may be associated with a property or may be independent of a property or definable location.

Cultural resources in Arizona range from 11,000 year-old mammoth hunting camps of the earliest Americans to trails and forts of Spanish explorers to historic mining, ranching, and transportation sites. Examples of prehistoric cultural resources are temporary hunting and gathering sites, villages, trails, rock art, geoglyphs, quarries, tool manufacturing areas, shrines, roasting pits, grinding stones, agricultural features, and surface scatters of artifacts. Historic sites include structures, trails, wagon roads, railroads, mines, sawmills, cairns, artifacts, and other materials associated with European exploration and settlement.

Prehistoric and historic cultural resources are found in all vegetation zones and at all elevations throughout the state. In general, prehistoric sites are denser near water and exploitable natural food sources such as mesquite bosques. The location of many historic sites is governed by the presence of natural resources, such as minerals that were extracted, and the proximity of land suitable for farming and livestock grazing.

The nature, distribution, and significance of cultural resources that might be affected by mining use and occupancy cannot be predicted with precision at the programmatic level. These resources will be identified and assessed in BLM's local investigations of site-specific actions.

Visual Resources and Recreation

Visual resources consist of the land, water, vegetation, animals, and other natural or human-made features visible on the public lands. Individual areas of the public lands have a variety of visual values and consequently warrant different levels of management. BLM must therefore systematically identify and evaluate the site-specific visual values and determine suitable levels of management. These visual values are identified through the visual resource management (VRM) inventory and are considered with other resources in the resource management planning (RMP) process.

BLM establishes visual management objectives in RMPs in conformance with the land use allocations made in the plan. These area-specific objectives provide the standards for planning, designing, and evaluating future management actions.

To enhance the quality of wilderness and outdoor recreational opportunities, BLM manages public land and water resources for their wildlife, scenic, archaeologic, and historic values. BLM's recreation program contributes to the tourist economy of Arizona and helps satisfy the growing public demand for outdoor recreation by providing opportunities on BLM-administered lands.

Most BLM public lands in Arizona are managed as extensive recreation management areas (ERMAs). Management action in these areas consist mainly of providing basic information and access. ERMAs are areas where dispersed recreation occurs and where visitors have the freedom of recreational choice with minimal regulatory constraint. Significant public recreation issues or management concerns are generally limited in these areas, and nominal management consistent with BLM's responsibilities is sufficient.

Economic Conditions

Mineral output in Arizona in 1995 was valued at \$4.48 billion, and more than 18,000 people are directly employed by the mining industry. Large copper mines employ most of these 18,000 workers. But a sizeable population makes a living by small-scale mining on public

lands. These mines play a large role in providing employment in many rural areas in the state. Businesses that supply goods and services to these small mines employ other people.

Social Environment

Arizona has large areas with sparse populations. In these areas, particularly around old mining districts, many people live on mining claims. Socially, these residents range from being good neighbors to outright threats to health, safety, and the environment. Consequently, strong social pressures range from a desire to preserve and protect the livelihood of small independent miners to outrage over the abuse of the Mining Law where "squatting" on the public lands masquerades as mining.

BLM and BLM Arizona have gone to great lengths to ensure that claimants and operators have ample time to comply with the subject regulations. Operators were given a grace period of 1 year from the effective date of the regulations to bring their operations into compliance. BLM also sent postcards to all claimants of record by August 15, 1996, informing them of the new regulations. In addition, BLM Arizona sent posters and displays to every county recorder office and all rural post offices in the state. These displays and posters gave information about the new regulations. Display stands were also placed in all BLM office locations in Arizona, and about 80 direct mailings were sent to mining supply companies, prospecting supply stores, rock and mineral shops, and state agencies.

BLM Arizona received about 160 forms from mining claimants asking for the grace period allowed in the subject regulations. Extending from August 15, 1996, to August 18, 1997, this grace period gave claimants time to comply with the regulations. Claimants had until October 15, 1996, to apply and qualify for the grace period. From field inspections, BLM estimates that the number of families living on mining claims exceeds the 160 claimants who filed for the grace period.

Environmental Consequences

In general, under the no-action alternative, occupancies, proposed or existing, that match the seven proposed occupancies under the proposed action will not be permitted. In this case, the approved occupancy of mining claims will end. However, under this alternative the unauthorized occupancy of mining claims will almost certainly increase.

In cases where occupancy is prevented there will not be any impact to the resource base. In cases of unauthorized occupancy, it is reasonable to expect that these occupancies will exist without the benefits of any environmental permitting or evaluation. The environmental consequences of these occupancies are estimated to greatly exceed an approved and properly permitted operation of similar size and scope.

BLM Arizona has dealt with mining claim occupancies that did not acquire the necessary

permits before beginning the occupancy. Typically, such occupancies produce impacts to water resources by the unregulated disposal of sewage and trash, impacts to soils through erosion and unnecessary surface disturbance, and visual impacts due to the generally cluttered and disorderly condition of the operation.

The environmental consequences of the proposed action and the no-action alternative are analyzed in the following pages.

Impacts on Climate and Air Quality

The main sources of air pollutants at a mine are gases from combustion, particularly vehicle emissions, and fugitive dust generated by unpaved roads, explosives, and crushing operations. These pollutants result from activities that the subject regulations do not govern. But the use of properly maintained and constructed buildings would contain some of the fugitive emissions of chemicals and dust. Pollutant levels would increase to permitted levels. The impacts of the proposed action will be the same in each of the three physiographic provinces of Arizona but permitted pollutant levels may vary by region and/or county.

The impacts of a specific occupancy proposal will be analyzed for local physiographic conditions. Occupancies under the proposed action must also conform to BLM land use plans and have all necessary permits before they begin. These plans and permits, being local in nature, will account for climatic and air quality differences between physiographic provinces.

Under the no-action alternative, where occupancies are stopped or prevented, there will not be any impacts to climate and air quality. Where unauthorized occupancies occur, impacts to climate and air quality could include the generation of dust and gaseous pollutants in excess of permit standards.

Impacts on Geology and Topography

Under the proposed action many if not all economic mineral deposits developed on federal mining claims could be exploited. The exploitation of mineral deposits from mining claims is essential to meet Mining Law requirements.

Use and occupancy could alter the topography of sites selected for mining related structures. Since these structures are usually placed on level ground to facilitate construction, most sites would be returned to predisturbance topographic patterns during reclamation. BLM will encourage the use of level or near-level sites for building all facilities.

The impacts of a specific occupancy proposal will be analyzed for local physiographic conditions. BLM will review reclamation schedules (required under the subject regulations) to see they consider the topography found in the physiographic province where the occupancy is planned. Occupancies under the proposed action must also conform to BLM land use plans

and have all necessary permits before they begin. These plans and permits, being local in nature, will account for geologic and topographic differences between physiographic provinces.

Under the no-action alternative, where occupancies are stopped or prevented, there will not be any impacts to geology and topography. Where unauthorized occupancies occur, impacts to geology and topography could include the degradation of mineral values and the disruption of existing topography in excess of accepted industry practices.

Impacts on Soils

Under the proposed action topsoil would be affected through erosion resulting from the removal of vegetation and incomplete recovery of topsoil from areas to be disturbed for the building and placing of structures. Reclamation would require the operator to replace topsoil removed from facilities, but some losses are inevitable. BLM would require a claimant or operator to employ the erosion prevention and control techniques listed in the BLM Reclamation Manual. All human-made slopes would be designed to prevent sheetflow from runoff, and early vegetative cover would be encouraged to stabilize soil salvage piles and newly regraded surfaces.

The impacts of a specific occupancy proposal will be analyzed for local physiographic conditions. BLM will review reclamation schedules (required under the subject regulations) to see they consider and preserve soils found in the physiographic province where the occupancy is planned. Occupancies under the proposed action must also conform to BLM land use plans and have all necessary permits before they begin. These plans and permits, being local in nature, will account for soil differences between physiographic provinces.

Under the no-action alternative, where occupancies are stopped or prevented, there will not be any impacts to soils. Where unauthorized occupancies occur, impacts to soils could include erosion and loss, topsoil would not be recovered prior to mining.

Impacts on Water Resources

Under the proposed action impacts on water resources would include consumption, diversion, and pollution of water up to levels specified by permits, water quality standards, and the EPA's industry effluent standards. BLM would require the claimant or operator to submit reclamation plans that discuss in detail the proposed surface water runoff and erosion controls, including how surface runoff will be controlled during ongoing operations, during interim shutdowns, and upon final closure. BLM would work with the claimant or operator to develop a water monitoring plan, where necessary, to ensure operator compliance with the approved reclamation plan. BLM inspectors would inspect operations to ensure that water resources are protected and that the conditions of the reclamation plan have been met before the release of the financial certification required under 43 CFR 3809.

The impacts of a specific occupancy proposal will be analyzed for local physiographic conditions. BLM will review reclamation schedules (required under the subject regulations) to see they consider local hydrologic conditions found in the physiographic province where the occupancy is planned. Occupancies under the proposed action must also conform to BLM land use plans and have all necessary permits before they begin. These plans and permits, being local in nature, will account for hydrologic differences between physiographic provinces.

Under the no-action alternative, where occupancies are stopped or prevented, there will not be any impacts to water resources. Where unauthorized occupancies occur, impacts to water resources could include contamination due to erosion, excessive consumption, illegal or improper retention structures and pollution in excess of permitted standards.

Impacts on Vegetation

Under the proposed action impacts to vegetation in areas dedicated to facility construction and use would involve the removal of all vegetation species. BLM would require that all such areas be reclaimed according to procedures established in planning documents and/or the BLM Solid Mineral Reclamation Handbook (H-3042-1). BLM would require that revegetation consist of native species, when possible. These species would be selected from similar climatic zones and soil types. All revegetation would consist of a mixture of seed types, reflecting both warm- and cool season-growth. The seed mixture would use a good balance of types that provide for the planned post-mining land use, such as grazing or wildlife. BLM inspectors would inspect all such areas to ensure that disturbed areas have been revegetated to establish a diverse, effective, and permanent vegetation cover before the release of the financial certification required under 43 CFR 3809.

The impacts of a specific occupancy proposal will be analyzed for local physiographic conditions. BLM will review reclamation schedules (required under the subject regulations) to see they consider and re-establish local vegetative communities found in the physiographic province where the occupancy is planned. Occupancies under the proposed action must also conform to BLM land use plans and have all necessary permits before they begin. These plans and permits, being local in nature, will account for vegetative differences between physiographic provinces.

Under the no-action alternative, where occupancies are stopped or prevented, there will not be any impacts to vegetation. Where unauthorized occupancies occur, impacts to vegetation could include the loss of native species as well as the total loss of all vegetation in highly disturbed and polluted areas.

Impacts on Wildlife

Under the proposed action use and occupancy could interfere with the natural free-roaming of

wildlife. Wildlife impacts could include the loss of habitat; the presence of domestic animals; and the limiting of access to grazing and existing water sources through fencing, damming or facility location. Properly built fences would protect wildlife and livestock in the area by excluding them from areas of active mining and process solution impoundments. Whenever seeps, springs, or water supply sources would be enclosed, provisions must be made to provide water supply sources outside the enclosures. Through its inspection program, BLM would ensure that facilities and fences would not unnecessarily endanger or restrict wildlife. The nature and distribution of wildlife that might be affected by mining use and occupancy cannot be predicted with precision at the programmatic level. These resources will be identified and assessed in BLM's local investigations of site-specific actions.

The impacts of a specific occupancy proposal will be analyzed for local physiographic conditions. BLM will perform a site specific investigation to protect the local wildlife communities found in the physiographic province where the occupancy is planned. Occupancies under the proposed action must also conform to BLM land use plans and have all necessary permits before they begin. These plans and permits, being local in nature, will account for differences between physiographic provinces.

Under the no-action alternative, where occupancies are stopped or prevented, there will not be any impacts to wildlife. Where unauthorized occupancies occur, impacts to wildlife could include fences and other structures that prevent access to necessary habitat and operations that present a physical hazard to wildlife. Habitat for threatened or endangered species could also be impacted or destroyed.

Impacts on Wild Horses and Burros

Under the proposed action use and occupancy could interfere with the natural free-roaming of wild horses and burros. Impacts could include loss of habitat and reduced access to grazing and water sources through facility locations and fencing. BLM would ensure that whenever water supply sources are enclosed, water would be supplied to areas outside the enclosure. In its concurrence with proposed occupancies, BLM would incorporate mitigating measures to reduce or eliminate adverse impacts from the proposal. Through its inspection program, BLM would ensure that facilities and fences would not unnecessarily endanger or restrict wild horses or burros.

Under the no-action alternative, where occupancies are stopped or prevented, there will not be any impacts to wild horses and burros. Where unauthorized occupancies occur, impacts to wild horses and burros could include fences and other structures that prevent access to necessary habitat and operations that present a physical hazard.

Impacts on Cultural Resources

Under the proposed action BLM employees will identify and evaluate all cultural resources

before any surface disturbance is authorized. Any potential adverse effects of the use or occupancy would be reduced or eliminated through avoidance, data recovery, restoration after use and possession, developing and implementing a data recovery plan, or other forms of mitigation.

Under the no-action alternative, where occupancies are stopped or prevented, there will not be any impacts to cultural resources. Where unauthorized occupancies occur, impacts to cultural resources could include the loss or destruction of these resources.

Impacts on Visual Resources and Recreation

Visual values are identified through the visual resource management inventory and are considered with other resources in the resource management planning process. Under the proposed action all proposals for mining claim use and occupancy considered in this analysis must conform to land use plans. BLM will review each proposal to ensure that it complies with the land use plan. BLM will also work with the claimant or operator to place structures in ways that do not detract from visual resources. BLM may also specify paint colors for buildings to protect visual resources. Later BLM inspections of the site would ensure that operations are built as specified in the 3715 filing and are kept neat and orderly.

As BLM begins to enforce the subject regulations, many current occupancies will end. As these occupancies end, BLM will require the claimant or operator to reclaim the site. If the operator or claimant does not have the financial resources to reclaim the site, BLM may, at the discretion of management, reclaim the site. In these cases, BLM will attempt to recover all, or a portion of, the reclamation costs from the operator or claimant. All new occupancies will have a reclamation plan and a reclamation bond according to regulations.

Under the proposed action BLM's desire to keep the public lands free of fences, signs, and other obstacles, except where needed for public safety or site security, will enhance access and therefore recreational opportunities.

The impacts of a specific occupancy proposal will be analyzed for local physiographic conditions. Occupancies under the proposed action must conform to BLM land use plans and have all necessary permits before they begin. These plans, being local in nature, will account for visual resource and recreational differences between physiographic provinces.

Under the no-action alternative, where occupancies are stopped or prevented, there will not be any impacts to visual resources and recreation. Where unauthorized occupancies occur, impacts to visual resources and recreation could include fences and other structures that unnecessarily restrict access to the public lands and operations that disrupt visual resources because of their cluttered and disorderly condition.

Impacts on Economic Conditions

Under the proposed action mining claims would be developed to their full potential. BLM would work with claimants or operators to ensure that they have enough land to operate their mining claims successfully. BLM's dedication to keeping facilities in the smallest possible area of disturbance consistent with an efficient operation will help claimants or operators reduce reclamation costs and keep financial guarantee costs to a minimum.

Operators or claimants who cannot or will not conform to the regulations could be adversely affected. These impacts may include the loss of their residences and perhaps their operations. These losses stem from those circumstances where marginal operators are operating without all needed permits and could not obtain the needed permits.

The proposed action will allow claimants and operators to know in advance the types of performance measures that may apply to their operations under general circumstances. This knowledge will allow operators and claimants to make informed business decisions and lower the costs of mine planning and engineering.

The proposed action will also benefit BLM by reducing the amount of time spent in preparing environmental assessments for mining proposals. Many mining proposals will conform to the seven proposed occupancies in the proposed action and will be analyzed as a group under this programmatic EA.

Under the no action alternative, mining operations would cease with the resulting loss of employment and revenue generation. Operators or claimants who proceed with unauthorized operations could expose themselves to significant reclamation liabilities that could be avoided by consulting with BLM under the subject regulations. Professional engineers, retained by operators or claimants to calculate bond amounts, would not have the benefit of published, "typical" performance measures to help them in their calculations. This lack of published standards may mean increased costs to claimants and operators and to BLM when the bond is reviewed.

Business decisions could be delayed or postponed as companies wait to appeal BLM decisions not to allow their proposed occupancy. Final business decisions can often be made only when the final mitigation measures or performance measures are specified. This delay in decision-making significantly increases costs to the mining industry.

Impacts on the Social Environment

Under the proposed action BLM will act to limit activities on mining claims to those that are reasonably incident to prospecting, mining, and processing. BLM will take actions at the rate that funding and staffing allow. This action will reduce "squatting" on public lands by people acting under the guise of the Mining Law. In addition, the regulations give clear guidance to

legitimate claimants and operators who wish to use their mining claims for purposes intended by law.

Under the no-action alternative impacts may increase as claimants/operators wait to appeal BLM decisions not to permit their proposed occupancy. People, especially the small miner, may suffer increased financial burdens, including the loss of use of residences, caused by long delays in the appeals process.

Cumulative Impacts

Arizona has about 34,000 mining claims, and Arizona BLM has on file about 1,000 active notices for the disturbance of 5 acres or less.

Less than half of notice level operations are estimated to involve residential occupancy or permanent structures. Most of the remaining claims are either completely inactive or operated at the casual use level. Generally, occupancies at this level consist of temporary structures such as tents and small travel trailers. The duration of the occupancy at the casual use level is typically less than 6 months and involves only negligible disturbance.

The number of occupancies to which this EA will apply is unknown, but permanent structures and residential use of mining claims are expected to decrease. Since residential occupancies and the placement of permanent structures must meet the requirements of the subject regulations, many who now occupy their mining claims but are not mining will be required to leave.

In addition, all occupancies will be of a definite duration. Claimants may request to extend their occupancies due to changes in market conditions or other factors, but all approved occupancies must have an estimated period of use and a reclamation schedule when operations end.

For these reasons, BLM Arizona expects that under the proposed action the number and duration of mining claim occupancies will decline.

Environmental Justice

In compliance with Executive Order 12898, "Federal Actions to Address Environmental Justice to Minority Populations and Low-Income Populations," BLM Arizona engaged in a campaign to inform the public of the new regulations. Notices were placed in Arizona post offices, all Arizona BLM offices and county recorder offices, and at most miner supply retail and wholesale outlets in the state. Claimants or potential claimants of all ethnicities and religious affiliations, regardless of their economic status, can reasonably be expected to frequent the establishments and offices where notices of the new regulations were placed.

Under the proposed action, BLM has analyzed a series of generic "typical" use and occupancy proposals. The proposals do not depend upon the ethnicity or economic status of a particular claimant or operator. The performance measures adopted in the proposed action are based on the estimated impacts of the "typical operation" and not of the claimant or operator.

Mining claim use and occupancy for many years was governed by case law, and the procedures required to deal with claimants were cumbersome and highly labor intensive. BLM overlooked some cases of illegal mining claim occupancy due to budget and labor limitations. As a result, over the years a few, usually lower income, claimants or operators derived the benefits of a free place to live and were not engaged in mining. The subject regulations change this situation, and BLM will begin to address these cases. As this happens, many small low-income claimants and operators will be affected. But, any enforcement actions taken by BLM will be based on the perceived impacts of occupancy and not on the social or financial status of the affected claimant or operator.

Public Comment Summary and Response

Approximately 200 unsigned FONSI's and supporting EAs were mailed to other Federal Agencies, State Agencies, and County Agencies, the mining claimants that submitted grace period forms under the subject regulations and several concerned citizens. Additionally, on August 29, 1997 a news release announcing the availability of the document was mailed to approximately 350 addresses including newspapers, publications, TV and radio stations, and other organizations. In accordance with 40 CFR 1501.4 (e), the BLM provided a 30-day comment period which ended on September 29, 1997.

The Bureau of Land Management (BLM) received 17 comment letters on the EA during the comment period. After examination and review of each letter, all of the comments can be grouped into the following 12 general categories. Within each category, the comments are summarized into a few generalized questions or statements followed by a response.

1. On the Programmatic Approach and the Regulations

Comment (1):

BLM would lose flexibility because the programmatic approach does not allow for site-specific conditions and site-specific mitigation.

Response (1):

BLM will not lose flexibility under the programmatic EA, as the BLM will always perform the suitable level of site-specific NEPA analysis. If analysis finds that the proposed occupancy would significantly differ from the proposed occupancies listed in the proposed action or that the proposed occupancy might result in impacts not previously addressed, a site-specific EA-level analysis or environmental impact statement-level analysis may be required. Refer to the section "Requirements for Further Environmental Analysis" in the

EA.

Comment (2):

The proposed action involves structures that do not involve residential occupancy and are outside the scope of the 43 CFR 3715 regulations. They seem to infringe on the 43 CFR 3809 regulations.

Response (2):

Any use of the public lands that is regulated under the 43 CFR 3809 regulations is also subject to the enforcement procedures under 43 CFR 3715. Any operational structure that could be used for residential purposes, whether it is or not, must have BLM concurrence under 43 CFR 3715 before it can be placed on a mining claim or mill site.

2. The Alternatives Considered and the Range of Alternatives

Comment (1):

Why would the no-action alternative prohibit occupancy on BLM lands? The no-action alternative conflicts with the mining laws.

Response (1):

The no-action alternative does not concur with the seven occupancies described in the proposed action. This would eliminate occupancies (at or below the notice level) from occurring on public lands. The no-action alternative shows the reader what would happen if nothing is done to meet the need or resolve the problem. The no-action alternative conflicts with the general mining law, but establishes a baseline for evaluating the environmental effects of the proposed action.

Comment (2):

In the proposed action, occupancy proposal number three should be changed because residential structures generally involve only septic systems and these would all be general permitted under the APP program.

Response (2):

The sentences that previously read "Placing on public lands and using residential structures as part of operations that require an APP issued by ADEQ. These structures include tents, motor homes, campers, trailers, cabins, houses, guard shacks, and any other structures designed for and used as residences." has been edited to clearly define our original intent. These sentences now read "Placing on public lands and using residential structures as part of operations that **are exempt from the APP program, are general permitted or** require an APP issued by ADEQ. These structures include tents, motor homes, campers, trailers, cabins, houses, guard shacks, and any other structures designed for and used as residences."

3. The Affected Environment

Comment:

BLM should provide a description of environmental conditions on mining claims under the affected environment.

Response:

Under the affected environment, the BLM describes environmental conditions changing to the maximum allowable limits under all applicable permits. These conditions are what BLM would expect from mining and milling and other mineral development operations, as well as occupancy.

4. Notice Level, Casual Use and Occupancy

Comment (1):

BLM should clarify where notice-level and casual use activities do not apply to occupancy. Additionally, BLM should clarify if exploration activities are covered under the proposed action.

Response (1):

BLM states in the EA that operational structures are considered to be governed by the 43 CFR 3715 regulations if they are able to provide shelter in nonemergency situations. These structures will be regulated by BLM under the subject regulations at the casual use level, the notice level and the plan of operations level of activity. This includes exploration activities.

Comment (2):

Please clearly identify who the proposed action will apply to. The EA implies that only claimants with approved plans before August 15, 1996, would be affected.

Response (2):

The EA applies to all operations at the casual use and notice level and those operations with approved plans of operation before August 15, 1996 where the claimant or operator applied for the grace period under the 43 CFR 3715 regulations.

5. Mining, Mineral Development and Cumulative Impacts

Comment (1):

The EA does not describe or analyze the environmental impacts of development. The only reference under the seven listed occupancies to development would be "using operational structures"-- which is undefined.

Response (1):

To the extent that uses are reasonably incident and do not involve occupancy, the surface management regulations (43 CFR 3809) govern those uses. While the BLM can use the enforcement procedures under 43 CFR 3715 to insure compliance with those regulations, they do not increase the regulatory requirements for uses other than occupancy. Each mining operation, whether presently permitted or proposed will fall into one of the following categories:

1. Casual use or notice level: BLM cannot prevent casual use or notice level activities, that do not involve occupancy, from occurring. Since BLM has no decision authority in these cases, a NEPA analysis is not performed. Under NEPA, BLM will only analyze the environmental impacts of proposed occupancies since only occupancy requires concurrence (a decision) from BLM before it begins.
2. Plan of Operation approved before August 15, 1996: If a claimant or operator has an approved plan of operations that plan was subjected to the NEPA process prior to approval. The NEPA analysis performed, analyzed the cumulative effects of the plan. BLM will process these plans, if the operator or claimant qualified for the 43 CFR 3715 grace period, by using this EA and tiering to the original NEPA document prepared for the initial plan approval.
3. Future plans of operation or plans that have not yet been approved: Each of these plans will be subjected to a site specific NEPA analysis. This analysis will analyze the cumulative effects of the proposed plan including occupancy.

A working definition of operational structures is provided in the EA. Refer to the "Definitions" section under occupancy, note 2.

Comment (2):

The EA does not discuss what would happen if current illegal occupants are required to leave their mining claims.

Response (2):

BLM has revised the "Impacts on Visual Resources and Recreation" section of the EA to discuss the reclamation that would be performed following removal of an illegal occupant.

6. Duplication of Permits, Bonds and Filings

Comment:

Concern was expressed that BLM will require a duplication of permitting.

Response:

BLM will work with the claimant to eliminate any duplication of permits, bonds and filings whenever possible. The preferred method for filing the required information under 43 CFR 3715 will be to incorporate that information into a plan of operation or notice under 43 CFR 3809. See 43 CFR 3715.3 - Table 2.

7. Requirements to Produce Assay Data Upon Request

Comment:

Specific requirements for access to assay and other confidential data and information, especially for a claim under exploration is inappropriate. BLM does not have the authority, absent a mineral contest proceeding, to require submission of assay data.

Response:

BLM always has the right to request assay data and may do so if the proposed occupancy does not appear to be justified by the geologic terrain or stage of development of the property. If the claimant or operator does not furnish the information, BLM may institute a mineral contest proceeding. Any information that is identified as proprietary or confidential will be held as such by BLM and will be returned to the claimant once BLM determines that the occupancy is justified.

8. Social Environment

Comment:

Concern was expressed that long time residents of mining claims would be forced to leave their homes.

Response:

The 43 CFR 3715 regulations provide for mining claim occupancy. Individuals who conform to the regulations will be allowed to continue their occupancies.

9. Environmental Justice

Comment:

The BLM should review it's own environmental justice strategy to insure that the proposed action is consistent with its policies.

Response:

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," directs Federal agencies to assess whether their actions have disproportionately high and adverse human health or environmental effects on minority and low-income populations. The extent to which the proposed action or alternative may disproportionately harm low-income and minority communities will be determined by the responsible official through the public involvement process. BLM Arizona engaged in a campaign to inform the public of the new regulations. In addition to a direct mailing, notices were placed in Arizona post offices, all Arizona BLM offices and county recorder offices, and at most miner supply

retail and wholesale outlets in the state. BLM's assessment of potential effects of the proposed action on low-income and minority communities is presented in the EA.

10. Permits and Procedures

Comment (1):

Since this EA deals with occupancy, why does it repeatedly state that the occupancy must have mining specific permits before occupancy begins?

Response (1):

43 CFR 3715 states that all uses must conform to all applicable federal and state environmental standards and you must have obtained all required permits before you begin. See 43 CFR 3715.5.

Comment (2):

For Arizona, a non-delegated state, National Pollution Discharge Elimination System (NPDES) permits are issued by EPA region 9. The EA should also mention the applicability of the Underground Injection Permit

Response (2):

The EA has been amended to reflect these facts.

Comment (3):

The Arizona State Mine Inspectors Office now requires a Mined Land Reclamation Permit per A.R.S. 27-973. This new permit requirement became effective in 1997 and should be referenced in the PA.

Response (3):

The requirements under A.R.S. 27-973 do not apply to Federal lands. Since the 43 CFR 3715 regulations apply to federal lands where both the surface and mineral estates are controlled by the BLM, the requirements of A.R.S. 27-973 do not apply to the proposed action.

11. Wildlife and Cultural

Comment (1):

An operator claiming the right to possess and to occupy preexisting buildings may be required to "restore the structure to its original condition." Please site the legal, statutory authority and case law upon which this statement will be enforced.

Response (1):

The sentence that previously read "...BLM may require the operator or claimant to restore the structure to its original condition", has been edited to clearly define our original intent. This sentence now reads "...BLM may require the operator or claimant to restore the structure to its **condition prior to the use or occupancy.**" The authority for this is the reclamation requirement in 43 CFR 3809.

Comment (2):

The recommendation was made that BLM request information from the Arizona Game and Fish Department's Heritage Data Management System to determine whether any special status species are known to occur in the area.

Response (2):

This change has been made in the EA.

12. Performance Measures

Comment (1):

The 14 day supply of chemicals seems to be overly restrictive, especially when those chemicals must be stored according to Department of Transportation Standards. Also, does this restriction apply to household chemicals.

Response (1):

A supply of chemicals in excess of 14 days is allowable under the 43 CFR 3715 regulations. BLM will consider requests to store process chemicals in excess of 14 days up to a maximum of 30 days under this programmatic EA. In these cases the claimant/operator must demonstrate a need to have a larger inventory. BLM will not process requests for a chemical inventory greater than a 30 day supply using this EA. This restriction does not apply to household chemicals or chemicals stored in quantities less than the Comprehensive Environmental Response Compensation Liability Act (CERCLA) reportable quantity. The EA has been amended to clarify this position.

Comment (2):

We should address a remote area garden plot for immediate food consumption and emergency transportation for work animals. They may be reasonably necessary for legitimate operation of the mine.

Response (2):

Such activities may be allowed under the 43 CFR 3715 regulations. BLM will not process such requests under this programmatic EA, but will consider them using a site-specific NEPA analysis.

Comment (3):

The reference to meeting OSHA requirements should be deleted.

Response (3):

It is not our intention to apply OSHA standards to all mining operations. The sentence which read "All operations must be conducted in strict accordance with Occupational Safety and Health Administration (OSHA) and Mine Safety and Health Administration (MSHA) regulations and the Arizona Mining Code administered by the Arizona State Mine Inspector." has been edited. It now reads "All operations must be conducted in strict accordance with **all applicable** Occupational Safety and Health Administration (OSHA) and Mine Safety and Health Administration (MSHA) regulations and the Arizona Mining Code administered by the Arizona State Mine Inspector." In addition,

we have included Appendix 7 which is the interagency agreement in effect between OSHA and MSHA. This document outlines the general jurisdiction of the two agencies.

Agencies and Individuals Consulted

Arizona Department of Environmental Quality

Arizona Department of Game and Fish

Arizona State Fire Marshal

Arizona State Mine Inspector's Office

Maricopa County Flood Control District

Maricopa County Environmental Services Department

Mine Safety and Health Administration

Occupational Safety and Health Administration

Pima County Department of Environmental Quality

Pinal County Air Quality Control District

United States Environmental Protection Agency

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Various, April 8, 1992, Solid Mineral Reclamation, BLM Manual Handbook (H-3042-1).

Appendix 1 - 43 CFR 3715 Regulations

Appendix 1 - 43 CFR 3715 Regulations

PART 3710--PUBLIC LAW 167; ACT OF JULY 23, 1955
Subpart 3715--Use and Occupancy Under the Mining Laws
Sec.

- 3715.0-1 What are the purpose and the scope of this subpart?
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3715.0-5 How are certain terms in this subpart defined?
3715.0-9 Information collection.
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Subpart 3715--Use and Occupancy Under the Mining Laws

Authority: 18 U.S.C. 1001, 3571 et seq.; 30 U.S.C. 22, 42, 612; 43 U.S.C. 1061 et seq., 1201, 1457, 1732 (b) and (c), 1733 (a) and (g).

Sec. 3715.0-1 What are the purpose and the scope of this subpart?

(a) Purpose. The purpose of this subpart is to manage the use and occupancy of the public lands for the development of locatable mineral deposits by limiting such use or occupancy to that which is reasonably incident. The Bureau of Land Management (BLM) will prevent abuse of the public lands while recognizing valid rights and uses under the Mining Law of 1872 (30 U.S.C. 22 et seq.) and related laws governing the public lands, regardless of when those rights were created. BLM will take appropriate action to eliminate invalid uses, including unauthorized residential occupancy of the public lands.

(b) Scope. This subpart applies to public lands BLM administers.

They do not apply to state or private lands in which the mineral estate has been reserved to the United States. They do not apply to Federal lands administered by other Federal agencies, even though those lands may be subject to the operation of the mining laws.

© This subpart does not impair the right of any person to engage in recreational activities or any other authorized activity on public lands BLM administers.

Sec. 3715.0-3 What are the legal authorities for this subpart?

The authorities for this subpart are 18 U.S.C. 1001, 3571 et seq.; 30 U.S.C. 22, 42, 612; 43 U.S.C. 1061 et seq., 1201, 1457, 1732 (b) and (c), 1733 (a) and (g).

Sec. 3715.0-5 How are certain terms in this subpart defined?

As used in this subpart the term:

Mining laws means all laws that apply to hardrock mining on public lands and which make public lands available for hardrock mineral development. This includes, but is not limited to, the general authorities relating to hardrock mining or to the public lands on which this rule is based and case law which interprets those authorities.

Mining operations means all functions, work, facilities, and activities reasonably incident to mining or processing of mineral deposits. It includes building roads and other means of access to a mining claim or millsite on public lands.

Occupancy means full or part-time residence on the public lands. It also means activities that involve residence; the construction, presence, or maintenance of temporary or permanent structures that may be used for such purposes; or the use of a watchman or caretaker for the purpose of monitoring activities. Residence or structures include, but are not limited to, barriers to access, fences, tents, motor homes, trailers, cabins, houses, buildings, and storage of equipment or supplies.

Permanent structure means a structure fixed to the ground by any of the various types of foundations, slabs, piers, poles, or other means allowed by building codes. The term also includes a structure placed on the ground that lacks foundations, slabs, piers, or poles, and that can only be moved through disassembly into its component parts or by techniques commonly used in house moving. The term does not apply to tents or lean-tos.

Public lands means lands open to the operation of the mining laws which BLM administers, including lands covered by unpatented mining claims or millsites.

Prospecting or exploration means the search for mineral deposits by geological, geophysical, geochemical, or other techniques. It also includes, but is not limited to, sampling, drilling, or developing surface or underground workings to evaluate the type, extent, quantity, or quality of mineral values present.

Reasonably incident means the statutory standard "prospecting, mining, or processing operations and uses reasonably incident thereto" (30 U.S.C. 612). It is a shortened version of the statutory standard. It includes those actions or expenditures of labor and resources by a person of ordinary prudence to prospect, explore, define, develop, mine, or beneficiate a valuable mineral deposit, using methods, structures, and equipment appropriate to the geological terrain, mineral deposit, and stage of development and reasonably related activities.

Substantially regular work means work on, or that substantially and directly benefits, a mineral property, including nearby properties under your control. The work must be associated with the search for and development of mineral deposits or the processing of ores. It includes active and continuing exploration, mining, and beneficiation or processing of ores. It may also include assembly or maintenance of equipment, work on physical improvements, and procurement of supplies, incidental to activities meeting the conditions of Secs. 3715.2 and

3715.2-1. It may also include off-site trips associated with these activities. The term also includes a seasonal, but recurring, work program.

Unnecessary or undue degradation, as applied to unauthorized uses, means those activities that are not reasonably incident and are not authorized under any other applicable law or regulation. As applied to authorized uses, the term is used as defined in 43 CFR 3802.0-5 and 3809.0-5.

Sec. 3715.0-9 Information collection.

(a) BLM has submitted to the Office of Management and Budget the information collection requirements contained in this subpart under 44 U.S.C. 3507 and the Paperwork Reduction Act of 1995 and assigned clearance number 1004-0169. BLM collects the information so that it may manage use and occupancy of public lands under the mining laws by prohibiting unauthorized uses and occupancies. A response to BLM is mandatory and required to obtain the benefit of occupying the public lands for reasonably incident activities.

(b) BLM estimates the public reporting burden for this information to average two hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Information Collection Clearance Officer (DW-110), Bureau of Land Management, Building 50, Denver Federal Center, Denver, Colorado 80225-0047, and the Office of Management and Budget, Paperwork Reduction Project, 1004-0169, Washington, DC 20503.

Sec. 3715.1 Do the regulations in this subpart apply to my use or occupancy?

To determine if the regulations in this subpart apply to your activities, refer to Table 1 in this section.

Table 1

Applicability of this subpart	
If your proposed use of the public lands--	Then--
Includes occupancy and is "reasonably incident" as defined by this subpart.	The provisions of this subpart apply to you. You must seek concurrence from BLM before beginning this use and comply with all provisions of this subpart.
Involves the placement, construction, or maintenance of enclosures, gates, fences, or signs.	The provisions of this subpart apply to you. You must seek concurrence from BLM before beginning this use and comply with all provisions of this subpart.
Is reasonably incident, but does not involve occupancy.	The provisions of this subpart do not apply to you, except for Secs. 3715.4, 3715.5 and 3715.7. You are subject to the applicable regulations in 43 CFR part 3800.
Is not reasonably incident (involving rights-of-way, for example), but may be allowed under the public land laws.	The occupancy consultation provisions of this subpart do not apply to you. Your use is not allowed under this subpart. You must seek

Is not allowed under the public land laws, the mining laws, the mineral leasing laws, or other applicable laws. Involves occupancy of a site, or any subsequent site within a 25-mile radius of the initially occupied site, for 14 days or less in any 90-day period.

authorization under 43 CFR Group 2900.

Your use is prohibited. You must not begin or continue unauthorized uses.

The provisions of this subpart do not apply to you. Refer to the applicable regulations in 43 CFR part 8360 and pertinent State Director supplementary rules. 43 CFR part 8360 will not otherwise apply to a reasonably incident use or occupancy that this subpart allows.

Sec. 3715.2 What activities do I have to be engaged in to allow me to occupy the public lands?

In order to occupy the public lands under the mining laws for more than 14 calendar days in any 90-day period within a 25-mile radius of the initially occupied site, you must be engaged in certain activities. Those activities that are the reason for your occupancy must:

- (a) Be reasonably incident;
- (b) Constitute substantially regular work;
- (c) Be reasonably calculated to lead to the extraction and beneficiation of minerals;
- (d) Involve observable on-the-ground activity that BLM may verify under Sec. 3715.7; and
- (e) Use appropriate equipment that is presently operable, subject to the need for reasonable assembly, maintenance, repair or fabrication of replacement parts.

Sec. 3715.2-1 What additional characteristic(s) must my occupancy have?

In addition to the requirements specified in Sec. 3715.2, your occupancy must involve one or more of the following:

- (a) Protecting exposed, concentrated or otherwise accessible valuable minerals from theft or loss;
- (b) Protecting from theft or loss appropriate, operable equipment which is regularly used, is not readily portable, and cannot be protected by means other than occupancy;
- (c) Protecting the public from appropriate, operable equipment which is regularly used, is not readily portable, and if left unattended, creates a hazard to public safety;
- (d) Protecting the public from surface uses, workings, or improvements which, if left unattended, create a hazard to public safety; or
- (e) Being located in an area so isolated or lacking in physical access as to require the mining claimant, operator, or workers to remain on site in order to work a full shift of a usual and customary length. A full shift is ordinarily 8 hours and does not include travel time to the site from a community or area in which housing may be obtained.

Sec. 3715.2-2 How do I justify occupancy by a caretaker or watchman?

If you assert the need for a watchman or caretaker to occupy the public lands to protect valuable or hazardous property, equipment, or workings, you must show that the need for the occupancy is both reasonably incident and continual. You must show that a watchman or caretaker is required to be present either whenever the operation is not active or whenever you or your workers are not present on the site.

Sec. 3715.2-3 Under what circumstances will BLM allow me to temporarily occupy a site for more than 14 days?

BLM may allow temporary occupancy at a single site to extend beyond the 14-day period described in Sec. 3715.1 if you need to secure the site beyond 14 days through the use of a watchman as allowed by Sec. 3715.2-2, and you have begun consultation with BLM under Sec. 3715.3. If BLM decides not to concur in the occupancy, the temporary occupancy must stop.

Sec. 3715.3 Must I consult with BLM before occupancy?

Before beginning occupancy, you must consult with BLM about the requirements of this subpart. See Table 2 in this section.

Table 2

Consultation requirements	
If you are proposing a use that would involve occupancy.	Then.
Under a plan of operations or a modification submitted under 43 CFR part 3800, subpart 3802 or subpart 3809.	You must include in the proposed plan of operations the materials required by Sec. 3715.3-2 describing any proposed occupancy for BLM review concurrently with review of the plan of operation. BLM will determine whether you have complied with the requirements of this subpart together with its decision approving or modifying the plan.
Under the notice provisions of 43 CFR part 3800, subpart 3809.	You must submit the materials required by Sec. 3715.3-2 together with the materials submitted under 43 CFR 3809.1-3 for BLM review concurrently with its review of the proposed activity. Any activities in the notice that do not involve occupancy and are reasonably incident may proceed in accordance with 43 CFR part 3800, subpart 3809.
And is a ``casual use'' under 43 CFR 3809.1-2 or does not require a plan of operations under 43 CFR 3802.1-2 and 3809.1-4 or a notice under 43 CFR 3809.1-3.	You are subject to the consultation provisions of this subpart and must submit the materials required by Sec. 3715.3-2 to BLM. Any casual use activities that do not involve occupancy and are reasonably incident may proceed in accordance with 43 CFR part 3800, subpart 3809.
Or enclosures, fences, gates, or signs intended to exclude the general public.	You are subject to the consultation provisions of this subpart and must submit the materials required by Sec. 3715.3-2 to BLM.

Sec. 3715.3-1 At what point may I begin occupancy?

You must not begin occupancy until--

(a) You have complied with either 43 CFR part 3800, subpart 3802 or 3809 and this subpart, and BLM has completed its review and made the required determinations under the applicable subparts, and

(b) You have obtained all federal, state and local mining, reclamation, and waste disposal permits, approvals, or other authorizations for the particular use or occupancy as required under this subpart.

Sec. 3715.3-2 What information must I provide to BLM about my proposed occupancy?

You must give BLM a detailed map that identifies the site and the placement of the items specified in paragraphs (c), (d), and (e) of this section, and a written description of the proposed occupancy that describes in detail:

(a) How the proposed occupancy is reasonably incident;

(b) How the proposed occupancy meets the conditions specified in Sec. 3715.2 and Sec. 3715.2-1;

(c) Where you will place temporary or permanent structures for occupancy;

(d) The location of and reason you need enclosures, fences, gates, and signs intended to exclude the general public;

(e) The location of reasonable public passage or access routes through or around the area to adjacent public lands; and

(f) The estimated period of use of the structures, enclosures, fences, gates, and signs, as well as the schedule for removal and reclamation when operations end.

Sec. 3715.3-3 How does BLM process the information I submit about my proposed occupancy?

BLM will review all proposed occupancies and all proposed enclosures, fences, gates, or signs intended to exclude the general public to determine if your proposed occupancy or use will conform to the provisions of Secs. 3715.2, 3715.2-1 and 3715.5. BLM will complete its review of a proposed occupancy not involving a plan of operations within 30 business days of receipt of the materials, unless it concludes that the determination cannot be made until:

(a) 30 business days after it prepares necessary environmental documents, and

(b) 30 business days after it has complied with section 106 of the National Historic Preservation Act, Section 7 of the Endangered Species Act, and/or other applicable statutes, if applicable.

Sec. 3715.3-4 How will BLM notify me of the outcome of its review process?

At the conclusion of the review, BLM will make a written determination of concurrence or non-concurrence, and will send it to you. For operations conducted under a plan of operations, BLM will include this written determination in the decision that approves, modifies, or rejects the plan.

Sec. 3715.3-5 What will BLM's notification include?

(a) BLM will include in each determination of concurrence a statement requiring you to continue to comply with Secs. 3715.2, 3715.2-1 and 3715.5.

(b) BLM will specify in each determination of non-concurrence how the proposed occupancy fails to meet the conditions of Sec. 3715.2, Sec. 3715.2-1 or Sec. 3715.5, and will provide you an opportunity to modify the proposed occupancy or appeal the determination under Sec. 3715.9.

Sec. 3715.3-6 May I begin occupancy if I have not received concurrence from BLM?

If you have not received concurrence from BLM, you must not begin occupancy even though you have submitted, or plan to submit, an amended occupancy proposal or an appeal.

Sec. 3715.4 What if I have an existing use or occupancy?

(a) By August 18, 1997, all existing uses and occupancies must meet the applicable requirements of this subpart. If not, BLM will either issue you a notice of noncompliance or order any existing use or occupancy failing to meet the requirements of this subpart to suspend or cease under Sec. 3715.7-1. BLM will also order you to reclaim the land under 43 CFR part 3800, subpart 3802 or 3809 to BLM's satisfaction within a specified, reasonable time, unless otherwise expressly authorized.

(b) If you are occupying the public lands under the mining laws on August 15, 1996, you may continue your occupancy for one year after that date, without being subject to the procedures this subpart imposes, if:

(1) You notify BLM by October 15, 1996 of the existence of the occupancy using a format specified by BLM; and

(2) BLM has no pending trespass action against you concerning your occupancy.

(c) The one-year grace period provided in paragraph (b) of this section will not apply if at any time BLM determines that your use or occupancy is not reasonably incident and the continued presence of the use or occupancy is a threat to health, safety or the environment. In this situation, BLM will order an immediate temporary suspension of activities under Sec. 3715.7-1(a).

(d) If you have no existing occupancies, but are engaged in uses of the public lands under the mining law, you are subject to the standards in Sec. 3715.5. BLM will determine if your existing uses comply with those standards during normal inspection visits to the area and during BLM review of notices and plans of operations filed under 43 CFR part 3800.

Sec. 3715.4-1 What happens after I give BLM written notification of my existing occupancy?

(a) BLM will visit your site during the normal course of inspection to obtain the information described in Sec. 3715.3-2. After the visit, BLM will make a determination of concurrence or non-concurrence.

(b) You must provide the information described in Sec. 3715.3-2 to BLM. You may provide it either in writing or verbally during a site visit by BLM field staff.

Sec. 3715.4-2 What if I do not notify BLM of my existing occupancy?

If you do not provide the written notice required in Sec. 3715.4, you will be subject to the enforcement actions of Sec. 3715.7-1, the civil remedies of Sec. 3715.7-2, and the criminal penalties of Sec. 3715.8.

Sec. 3715.4-3 What if BLM does not concur in my existing use or occupancy?

If BLM determines that all or any part of your existing use or occupancy is not reasonably incident:

(a) BLM may order a suspension or cessation of all or part of the use or occupancy under Sec. 3715.7-1;

(b) BLM may order the land to be reclaimed to its satisfaction and specify a reasonable time for completion of reclamation under 43 CFR part 3800; and

(c) BLM may order you to apply within 30 days after the date of

notice from BLM for appropriate authorization under the regulations in 43 CFR Group 2900.

Sec. 3715.4-4 What if there is a dispute over the fee simple title to the lands on which my existing occupancy is located?

BLM may defer a determination of concurrence or non-concurrence with your occupancy until the underlying fee simple title to the land has been finally determined by the Department of the Interior. During this time, your existing occupancy may continue, subject to Sec. 3715.5(a).

Sec. 3715.5 What standards apply to my use or occupancy?

(a) Your use or occupancy must be reasonably incident. In all uses and occupancies, you must prevent or avoid "unnecessary or undue degradation" of the public lands and resources.

(b) Your uses must conform to all applicable federal and state environmental standards and you must have obtained all required permits before beginning, as required under 43 CFR part 3800. This means getting permits and authorizations and meeting standards required by state and federal law, including, but not limited to, the Clean Water Act (33 U.S.C. 1251 et seq.), Clean Air Act (42 U.S.C. 7401 et seq.), and the Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.), as required under 43 CFR part 3800.

(c) Your occupancies must conform to all applicable federal and state environmental standards and you must have obtained all required permits before beginning, as required under this subpart and 43 CFR part 3800. This means getting permits and authorizations and meeting standards required by state and federal law, including, but not limited to, the Clean Water Act (33 U.S.C. 1251 et seq.), Clean Air Act (42 U.S.C. 7401 et seq.), and the Resource Conservation and Recovery

Act (42 U.S.C. 6901 et seq.), as required under this subpart and 43 CFR part 3800.

(d) If your prospecting or exploration activities involve only surface activities, you must not place permanent structures on the public lands. Any temporary structures you place on the public lands during prospecting or exploration will be allowed only for the duration of the activities, unless BLM expressly and in writing allows them to remain longer. If your prospecting or exploration activities involve subsurface activities, you may place permanent structures on the public lands, if BLM concurs.

(e) All permanent and temporary structures you place on the public lands must conform with the applicable state or local building, fire, and electrical codes, and occupational safety and health and mine safety standards. If state or local codes require, you must obtain a certificate of occupancy or its equivalent before you begin use or occupancy involving permanent structures. If state or local law requires, you must also acquire appropriate sewerage and sanitation permits before the occupancy or use of a permanent structure placed on the public lands.

Sec. 3715.5-1 What standards apply to ending my use or occupancy?

Unless BLM expressly allows them in writing to remain on the public lands, you must remove all permanent structures, temporary structures, material, equipment, or other personal property placed on the public lands during authorized use or occupancy under this subpart. You have 90 days after your operations end to remove these items. If BLM concurs in writing, this provision will not apply to seasonal operations that are temporarily suspended for less than one year and expected to continue during the next operating season or to operations that are suspended for no longer than one year due to market or labor conditions.

Sec. 3715.5-2 What happens to property I leave behind?

Any property you leave on the public lands beyond the 90-day period described in Sec. 3715.5-1 becomes property of the United States and is subject to removal and disposition at BLM's discretion consistent with applicable laws and regulations. You are liable for the costs BLM incurs in removing and disposing of the property.

Sec. 3715.6 What things does BLM prohibit under this subpart?

Except where other applicable laws or regulations allow, BLM prohibits the following:

(a) Placing, constructing, maintaining or using residences or structures for occupancy not meeting:

- (1) The conditions of occupancy under Secs. 3715.2 or 3715.2-1; or
- (2) Any of the standards of occupancy under Sec. 3715.5;

(b) Beginning occupancy before the filing, review, and approval or modification of a plan of operation as required under 43 CFR part 3800, subparts 3802 or 3809;

(c) Beginning occupancy before consultation with BLM as required by Sec. 3715.3 for activities that do not require a plan of operations under 43 CFR part 3800, subpart 3802 or that are defined as casual use or notice activities under 43 CFR part 3800, subpart 3809;

(d) Beginning occupancy without receiving a determination of concurrence because the proposed occupancy or fencing will not conform to the provisions of Sec. 3715.2, Sec. 3715.2-1 or Sec. 3715.5;

(e) Not complying with any order issued under this subpart within the time frames the order provides;

(f) Preventing or obstructing free passage or transit over or through the public lands by force, threats, or intimidation; provided, however, that reasonable security and safety measures in accordance with this subpart are allowed;

(g) Placing, constructing, or maintaining enclosures, gates, or fences, or signs intended to exclude the general public, without BLM's concurrence;

(h) Causing a fire or safety hazard or creating a public nuisance;

(i) Not complying with the notification and other requirements under Sec. 3715.4 relating to an existing occupancy; and

(j) Conducting activities on the public lands that are not reasonably incident, including, but not limited to: non-mining related habitation, cultivation, animal maintenance or pasturage, and development of small trade or manufacturing concerns; storage, treatment, processing, or disposal of non-mineral, hazardous or toxic materials or waste that are generated elsewhere and brought onto the public lands; recycling or reprocessing of manufactured material such as scrap electronic parts, appliances, photographic film, and chemicals; searching for buried treasure, treasure trove or archaeological specimens; operating hobby and curio shops; cafes; tourist stands; and hunting and fishing camps.

Sec. 3715.7 How will BLM inspect my use or occupancy and enforce this subpart?

(a) BLM field staff is authorized to physically inspect all structures, equipment, workings, and uses located on the public lands. The inspection may include verification of the nature of your use and occupancy to ensure that your use or occupancy is, or continues to be, reasonably incident and in compliance with Secs. 3715.2, 3715.2-1, 3715.4-1 and 3715.5.

(b) BLM will not inspect the inside of structures used solely for residential purposes, unless an occupant or a court of competent jurisdiction gives permission.

Sec. 3715.7-1 What types of enforcement action can BLM take if I do not meet the requirements of this subpart?

BLM has four types of orders that it can issue depending on the circumstances:

(a) Immediate suspension.

(1) BLM may order an immediate, temporary suspension of all or any part of your use or occupancy if:

(I) All or part of your use or occupancy is not reasonably incident or is not in compliance with Secs. 3715.2, 3715.2-1, 3715.3-1(b), 3715.5 or 3715.5-1, and

(ii) an immediate, temporary suspension is necessary to protect health, safety or the environment.

(2) BLM will presume that health, safety or the environment are at risk and will order your use or occupancy to be immediately and temporarily suspended if:

(I) You are conducting an occupancy under a determination of concurrence under this section; and

(ii) You fail at any time to meet any of the standards in paragraphs Sec. 3715.3-1(b) or Sec. 3715.5 (b), (c) or (d).

(3) The suspension order will describe--

(I) How you are failing or have failed to comply with the requirements of this subpart; and

(ii) The actions, in addition to suspension of the use or occupancy, that you must take to correct the noncompliance and the time by which you must suspend the use or occupancy. It will also describe the time, not to exceed 30 days, within which you must complete corrective action.

(4) The suspension order will not be stayed by an appeal.

(b) Cessation order.

(1) BLM may order a temporary or permanent cessation of all or any part of your use or occupancy if:

(I) All or any part of your use or occupancy is not reasonably incident but does not endanger health, safety or the environment, to the extent it is not reasonably incident;

(ii) You fail to timely comply with a notice of noncompliance issued under paragraph (c) of this section;

(iii) You fail to timely comply with an order issued under paragraph (d) of this section; or

(iv) You fail to take corrective action during a temporary suspension ordered under paragraph (a) of this section.

(2) The cessation order will describe--

(I) The ways in which your use or occupancy is not reasonably incident; is in violation of a notice of noncompliance issued under paragraph (c) of this section; or is in violation of an order issued under paragraphs (a) or (d) of this section, as appropriate;

(ii) The actions, in addition to cessation of the use or occupancy, that you must take to correct the noncompliance;

(iii) The time by which you must cease the use or occupancy, not to exceed 30 days from the date the Interior Board of Land Appeals affirms BLM's order; and

(iv) The length of the cessation.

(c) Notice of noncompliance.

(1) If your use or occupancy is not in compliance with any requirements of this subpart, and BLM has not invoked paragraph (a) of this section, BLM will issue an order that describes--

(I) How you are failing or have failed to comply with the requirements of this subpart;

(ii) The actions that you must take to correct the noncompliance and the time, not to exceed 30 days, within which you must start corrective action; and

(iii) The time within which you must complete corrective action.

(2) If you do not start and complete corrective action within the time allowed, BLM may order an immediate suspension under paragraph (a) of this section, if necessary, or cessation of the use or occupancy under paragraph (b) of this section.

(d) Other. If you are conducting an activity that is not reasonably incident but may be authorized under 43 CFR Group 2900 or 8300, or, as to sites in Alaska, 43 CFR part 2560, BLM may order you to apply within

30 days from the date you receive the order for authorization under the listed regulations.

Sec. 3715.7-2 What happens if I do not comply with a BLM order?

If you do not comply with a BLM order issued under Sec. 3715.7-1, the Department of the Interior may request the United States Attorney to institute a civil action in United States District Court for an injunction or order to prevent you from using or occupying the public lands in violation of the regulations of this subpart. This relief may be in addition to the enforcement actions described in Sec. 3715.7-1 and the penalties described in Sec. 3715.8.

Sec. 3715.8 What penalties are available to BLM for violations of this subpart?

The penalties for individuals and organizations are as follows:

(a) Individuals. If you knowingly and willfully violate the requirements of this subpart, you may be subject to arrest and trial under section 303(a) of FLPMA (43 U.S.C. 1733(a)) and/or section 4 of the Unlawful Occupancy and Inclosures of Public Lands Act (43 U.S.C. 1064). If you are convicted, you will be subject to a fine of not more than \$100,000 or the alternative fine provided for in the applicable provisions of 18 U.S.C. 3571, or imprisonment not to exceed 12 months, or both, for each offense.

(b) Organizations. If an organization or corporation knowingly or willfully violates the requirements of this subpart, it is subject to trial and, if convicted, will be subject to a fine of not more than \$200,000, or the alternative fine provided for in the applicable provisions of 18 U.S.C. 3571.

Sec. 3715.8-1 What happens if I make false statements to BLM?

You are subject to arrest and trial before a United States District Court if, in any matter under this subpart, you knowingly and willfully falsify, conceal or cover up by any trick, scheme or device a material fact, or make any false, fictitious or fraudulent statements or representations, or make or use any false writings or document knowing the same to contain any false, fictitious or fraudulent statement or entry. If you are convicted, you will be fined not more than \$250,000 or the alternative fine provided for in the applicable provisions of 18 U.S.C. 3571, or imprisoned not more than 5 years, or both.

Sec. 3715.9 What appeal rights do I have?

If you are adversely affected by a BLM decision, order or determination made under this subpart, you may appeal the decision, order or determination to the Interior Board of Land Appeals (IBLA) under the provisions of 43 CFR part 4.

Sec. 3715.9-1 Does an appeal to IBLA suspend a BLM decision?

(a) An appeal to IBLA does not suspend an order requiring an immediate, temporary suspension of occupancy issued under Sec. 3715.7-1(a) before the appeal or while it is pending. In this case, the provisions of 43 CFR 4.21(a) do not apply.

(b) The provisions of 43 CFR 4.21(a) apply to all other BLM decisions, orders or determinations under this subpart.

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Appendix 2 - 43 CFR 3809 Bonding Regulations

For the reasons stated in the preamble, and under the authorities cited below, Part 3800, Subchapter C, Chapter II, Title 43 of the Code of Federal Regulations is amended as set forth below.

1. The authority citation for part 3800 is revised to read as follows:

Authority: 16 U.S.C. 351; 16 U.S.C. 460y-4; 30 U.S.C. 22; 31 U.S.C. 9701; 43 U.S.C. 154; 43 U.S.C. 299; 43 U.S.C. 1201; 43 U.S.C. 1740; 30 U.S.C. 28k.

Subpart 3809--Surface Management

2. The authority citation for 43 CFR subpart 3809 is removed.

3. Section 3809.0-9 is added to read as follows:

§ 3809.0-9 Information collection.

(a) The collections of information contained in subpart 3809 have been approved by the Office of Management and Budget under 44 U.S.C. 3501 et seq. and assigned clearance number 1004-0176. BLM will use the information in regulating and monitoring mining and exploration operations on public lands. Response to requests for information is mandatory in accordance with 43 U.S.C. 1701 et seq. The information collection approval expires December 31, 1999.

(b) Public reporting burden for this information is estimated to average 16 hours per response for notices and 32 hours per response for plans of operations, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Information Collection Clearance Officer (783), Bureau of Land Management, Washington, D.C. 20240, and the Office of Management and Budget, Attention Desk Officer for the Interior Department, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, referring to information collection clearance number 1004-0176.

4. Section 3809.1-8 is removed.

5. Section 3809.1-9 is revised to read as follows:

§ 3809.1-9 Financial guarantees.

- (a) No operator or claimant shall--

- (1) Initiate operations under a notice without providing the authorized officer certification of the existence of the appropriate financial guarantee as required by paragraph (c) through (f) of this section; or

- (2) Conduct operations under a plan of operations without providing the authorized officer with the appropriate financial guarantee as required by paragraphs (g) through (j) of this section.

- (b) No financial guarantee is required for operations that constitute casual use under § 3809.1-2.

- (c) No operations conducted under a notice in accordance with § 3809.1-3 shall be initiated until the operator or mining claimant provides to the authorized officer a certification that a financial guarantee exists to ensure performance of reclamation in accordance with the requirements of §

3809.1-3(d). Each certification must be accompanied by a calculation of reclamation costs of the proposed activities covered by the notice, as if third party contractors were performing the reclamation after the site is vacated by the operator. This calculation must be certified at the operator's or mining claimant's expense by a third party professional engineer registered to practice within the State in which the activities are proposed. However, when the requirement for a financial guarantee is met by providing evidence of an instrument held by a State agency as provided in this paragraph, the certification of costs by a third party professional engineer is not required. The financial guarantee must be sufficient to cover 100 percent of the estimate of the costs of reclamation, as calculated above, required by State and Federal laws and regulations, and may be in any of the forms described in paragraphs (k) and (l) of this section. In calculating the amount of the financial guarantee, each acre of disturbance or fraction thereof shall require not less than \$1,000. The financial guarantee may also be met by providing evidence of an appropriate instrument held or approved by a State agency pursuant to State law or regulations so long as the instrument is equivalent to that required by this section, is redeemable by the Secretary, acting by and through BLM, and covers the same area covered by the notice. The certification must accompany the notice submitted to the proper BLM office having jurisdiction over the land in which the claim or project area is located. Failure to submit a complete certification will render the notice incomplete and it will be returned by the authorized officer. The financial guarantee covered by the certification must be available, until replaced by another adequate financial guarantee with the concurrence of the authorized officer or until released by the authorized officer, for the performance of such reclamation as required by § 3809.1-3. Such reclamation shall also include all reasonable measures identified as the result of the consultation required by the authorized officer under § 3809.1-3(c). If there is a material change in any financial guarantee on which the operator or mining claimant's certification is based, the operator or mining claimant must submit an amended certification to the authorized officer within 45 days after the material change occurs.

(d) The certification submitted by the operator, mining claimant, or its authorized agent, for any operations conducted under a notice, shall include:

(1) The name, home address, office and home telephone numbers, and social security number or employer identification number of the operator, mining claimant, or authorized agent;

(2) A statement that the mining claimant/operator for whom the individual is submitting the certification will be responsible for the required reclamation;

(3) A statement that the authorized officer will be notified at the completion of reclamation operations to arrange for a final inspection;

(4) A statement that the financial guarantee in the amount of the estimated reclamation costs, as calculated under § 3809.1-9(c), or \$1,000 per acre or fraction thereof of disturbance as described in the attached notice, whichever is greater, exists, followed by a complete description of the financial guarantee and its location;

(5) A statement that the financial guarantee in the amount of the estimated reclamation costs, as calculated under § 3809.1-9(c), or \$1,000 per acre or fraction thereof of disturbance, whichever is greater, will be delivered to the authorized officer within 45 days of a demand for its surrender, following failure to complete reclamation, unless an additional period of time not to exceed 45 days is granted in writing by the authorized officer;

(6) A statement acknowledging that surrender of the financial guarantee will not release the operator, mining claimant, or authorized agent from responsibility to ensure completion of the reclamation should the amount of the guarantee be insufficient to complete all required reclamation;

(7) A statement acknowledging that release of the requirement to maintain the financial guarantee does not release or waive any claim the Bureau of Land Management may have against any person under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. 9601 et seq., or any other applicable statutes or any applicable regulations; and

(8) A statement acknowledging that non-existence of the financial guarantee or the failure to provide the guarantee upon demand for its surrender by the authorized officer may result in prosecution under 18 U.S.C. 1001, 43 U.S.C. 1733, or other appropriate authorities.

(e) Each statement required by paragraph (d) of this section to be included with the certification must be initialed and dated by the individual submitting the certification. Failure to initial all statements will result in the certification and the notice being returned as incomplete by the authorized officer.

(f) At any time, the authorized officer may require the notice-level operator or mining claimant to demonstrate the existence of the guarantee set out in the certification described in paragraph (c) of this section.

(g) Each operator or mining claimant who conducts operations under an approved plan of operations shall furnish to the authorized officer a financial guarantee in an amount specified by the authorized officer. In determining the amount of the guarantee, the authorized officer shall consider the estimated cost of reasonable stabilization and reclamation of areas disturbed, including the cost to the BLM of conducting the reclamation, using either contract or government personnel.

(h) For activities conducted under a plan of operations, the financial guarantee must be sufficient to cover 100 percent of the costs of reclamation required by State and Federal statutes and regulations and calculated as if third party contractors were performing the reclamation after the site is vacated by the operator. This calculation must be certified at the operator's or mining claimant's expense by a third party professional engineer registered to practice within the State in which the activities are proposed, but when the requirement for a financial guarantee is met by providing evidence of an instrument held or approved by a State agency, the certification of costs by a third party professional engineer will not be required. This calculation must be agreed to by the authorized officer. In no case shall the financial guarantee be less than \$2,000 per acre or fraction thereof.

(I) In lieu of requiring the financial guarantee as provided in paragraph (g) of this section, the authorized officer may accept evidence of an existing financial guarantee under State law or regulations, if it is redeemable by the Secretary, acting by and through the authorized officer, and held or approved by a State agency for the same area covered by the plan of operations, upon determining that the instrument held or approved by the State provides the same guarantee as that required by this section, regardless of the type of financial instruments chosen by the State. The operator or mining claimant proposing a plan of operations may offer for the approval of the authorized officer any of the financial instruments listed in paragraphs (k) and (l) of this section. The authorized officer may reject any of the submitted financial instruments, but will do so by decision in writing, with a complete explanation of the reasons for the rejection, within 30 days of the

offering. If the State makes a demand against the financial guarantee, thereby reducing the available balance, the operator or mining claimant must replace the amount of reduced financial guarantee with another financial guarantee instrument acceptable under this subpart.

(j) In the event that an approved plan is modified in accordance with 3809.1-7, the authorized officer will review the initial financial guarantee for adequacy and, if necessary, require the operator or mining claimant to adjust the amount of the financial guarantee to cover the estimated cost of reasonable stabilization and reclamation of areas disturbed under the plan as modified. Operators or mining claimants with an approved financial guarantee may request the authorized officer to accept a replacement financial instrument at any time after the approval of an initial instrument. The authorized officer shall review the offered instrument for adequacy and may reject any offered instrument, but will do so by a decision in writing, with a complete explanation of the reasons for the rejection, within 30 days of the offering.

(k) Provided that the State Director has determined that it is a legal financial instrument within the State where the operations are proposed, the financial guarantee may take the form of any of the following:

(1) Surety bonds, including surety bonds arranged or paid for by third parties.

(2) Cash in an amount equal to the required dollar amount of the financial guarantee, to be deposited and maintained in a Federal depository account of the United States Treasury by the authorized officer.

(3) Irrevocable letters of credit from a bank or financial institution organized or authorized to transact business in the United States.

(4) Certificates of deposit or savings accounts not in excess of the maximum insurable amount as set by the Federal Deposit Insurance Corporation.

(5) (I) Any instrument listed in paragraph (k) (5) (I) (A) or (B) of this section having a market value of not less than the required dollar amount of the financial guarantee and maintained in a Securities Investors Protection Corporation insured trust account by a licensed securities brokerage firm for the benefit of the Secretary of the Interior, acting by and through the authorized officer.

(A) Negotiable United States Government, State and Municipal securities or bonds.

(B) Investment-grade rated securities having a Standard and Poor's rating of AAA or AA or an equivalent rating from a nationally recognized securities rating service.

(ii) Notwithstanding the provision in paragraph (c) of this section that an operator or mining claimant conducting operations under a notice need only provide the authorized officer with a certification of the existence of the required financial guarantee, and notwithstanding the provision in paragraph (g) of this section that an operator or mining claimant conducting operations under an approved plan of operations must furnish the required financial guarantee to the authorized officer, any operator or mining claimant who chooses to use the instruments permitted under this paragraph (k) (5) in satisfaction of such provisions, must provide the authorized officer, prior to the initiation of such operations and by the end of each quarter of the calendar year thereafter, a certified statement describing the nature and market value of the instruments maintained in that account, and including any

current statements or reports furnished by the brokerage firm to the operator or mining claimant concerning the asset value of the account.

(iii) The operator or mining claimant must review the market value of the account instruments by no later than December 31 of each year to ensure that their market value continues to be not less than the required dollar amount of the financial guarantee. When the market value of the account instruments has declined by more than 10 percent of the required dollar amount of the financial guarantee, the operator or mining claimant must, within 10 days after its annual review or at any time upon the written request of the authorized officer, provide additional instruments, as defined in paragraphs (k) (5) (I) (A) and (B), to the trust account so that the total market value of all account instruments is not less than the required dollar amount of the financial guarantee. The operator or mining claimant must send a certified statement to the authorized officer within 45 days thereafter describing the actions taken by the operator or mining claimant to raise the market value of its account instruments to the required dollar amount of the financial guarantee. The operator or mining claimant must include copies of any statements or reports furnished by the brokerage firm to the operator or mining claimant documenting such an increase.

(iv) Whenever, on the basis of a review conducted under paragraph (k) (5) (iii) of this section, the operator or mining claimant ascertains that the total market value of its trust account instruments exceeds 110 percent of the required dollar amount of the financial guarantee, the operator or mining claimant may request and the authorized officer will authorize a written release of that portion of the account that exceeds 110 percent of the required financial guarantee, if the operator or mining claimant is in compliance with the terms and conditions of its notice or approved plan of operations.

(l) In place of the individual financial guarantee on each separate operation, a blanket financial guarantee covering statewide or nationwide operations may be furnished at the option of the operator or mining claimant, if the terms and conditions are determined by the authorized officer to be sufficient to comply with the regulations in this subpart.

(m) When all or any portion of the reclamation has been completed in accordance with a notice submitted pursuant to § 3809.1-3 or an approved plan of operations, the operator or mining claimant may notify the authorized officer that such reclamation has occurred and may request a reduction in the financial guarantee or BLM approval of the adequacy of the reclamation, or both. Upon any such notification, the authorized officer will promptly inspect the reclaimed area with the operator. The authorized officer will notify the operator, in writing, whether the financial guarantee can be reduced, the reclamation is acceptable, or both. The authorized officer may reduce the financial guarantee by an appropriate amount, not to exceed 60 percent of the total estimated costs of reclamation as calculated in accordance with paragraph (c) or (h) of this section, if the authorized officer determines that a portion of the reclamation has been completed in accordance with applicable requirements, including, but not limited to, requirements for backfilling, regrading, establishment of drainage control, and stabilization and neutralization of leach pads, heaps, leach-bearing tailings, and similar facilities. The authorized officer will not release that portion of the financial guarantee equal to 40 percent of the total estimated costs of reclamation until the area disturbed by operations has been revegetated to establish a diverse, effective, and permanent vegetative cover, and until any effluent discharged from the area has met, without violations and without the necessity for additional treatment, applicable effluent limitations and water quality standards for not less than 1 full year. Any such release of the financial guarantee does not release or waive any claim

BLM may have against any person under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, 42 U.S.C. 9601 et seq., or under any other applicable statutes or any applicable regulations.

(n) If an operator or mining claimant refuses or is unable to conduct reclamation as provided in the reclamation measures incorporated into its notice or approved plan of operations or the regulations in this subpart, if the terms of the notice or decision approving a plan of operation are not met, or if the operator or mining claimant defaults on the conditions under which the financial guarantee rests, the authorized officer shall take the following action to require the forfeiture of all or part of a financial guarantee for any area or portion of an area covered by the financial guarantee:

(1) Send written notification by certified mail, return receipt requested, to the operator or mining claimant that provided the financial guarantee, and the surety on the financial guarantee, if any, and the State agency holding the financial guarantee, if any, informing them of the decision to require the forfeiture of all or part of the financial guarantee. The notification must include the reasons for the forfeiture and the amount to be forfeited. The amount shall be based on the estimated total cost of achieving the reclamation plan requirements for the area or portion of the area affected, including the administrative costs of the Bureau of Land Management.

(2) In the written notification, advise the operator or mining claimant and surety, if applicable, of the conditions under which forfeiture may be avoided. Such conditions may include, but are not limited to--

(I) Written agreement by the operator, mining claimant, or another party to perform reclamation operations in accordance with a compliance schedule which meets the conditions of the notice or decision approving a plan of operations and the reclamation plan, and a demonstration that such party has the ability to satisfy the conditions; or

(ii) Written permission from the authorized officer to a surety to complete the reclamation, or the portion of the reclamation applicable to the bonded phase or increment, if the surety can demonstrate an ability to complete the reclamation in accordance with the reclamation measures incorporated in a notice or approved plan of operations.

(o) In the event the operator or mining claimant fails to meet the requirements of the written notification provided under paragraph (n) of this section, the authorized officer will--

(1) Proceed immediately to collect the forfeited amount as provided by applicable laws for the collection of defaulted bonds or other debts if actions to avoid forfeiture have not been taken, or if an appeal has not been filed under § 3809.4, or if such appeal is filed and the decision appealed is confirmed.

(2) Use funds collected from financial guarantee forfeiture to implement the reclamation plan, or portion thereof, on the area or portion of the area to which bond coverage applies.

(p)(1) In the event the estimated amount forfeited is insufficient to pay for the full cost of reclamation, the operator or mining claimant is liable for the remaining costs. The authorized officer may complete or authorize completion of reclamation of the bonded area and may recover from the operator or mining claimant all costs of reclamation in excess of the amount forfeited.

(2) In the event the amount of financial guarantee forfeited was more

than the amount necessary to complete reclamation, the unused funds shall be returned, within a reasonable amount of time, by the authorized officer to the party from whom they were collected.

(q) When a mining claim is patented, the authorized officer will release the operator or mining claimant from the portion of the financial guarantee that applies to operations within the boundaries of the patented land. The authorized officer shall release the operator or mining claimant from the remainder of the financial guarantee, including the portion covering approved means of access outside the boundaries of the mining claim, when the operator or mining claimant has completed acceptable reclamation. However, existing access to patented mining claims, if across Federal lands, shall continue to be regulated under the approved plan and shall include a financial guarantee. The provisions of this paragraph do not apply to patents issued on mining claims within the boundaries of the California Desert Conservation Area (see § 3809.6).

6. Section 3809.3-1 is amended by revising paragraph (b) to read as follows:

§ 3809.3-1 Applicability of State law.

* * * * *

(b) Each State Director will publish a notice identifying all legal financial guarantees that may be accepted by any authorized officer under his or her jurisdiction, after consultation with the appropriate State authorities to determine which of the financial instruments in § 3809.1-9(k) are allowable under State law to satisfy the financial assurance requirements relating to the reclamation requirements of that State. This list will be updated annually.

* * * * *

7. Section 3809.3-2 is amended by revising paragraph (e) and adding paragraph (f) to read as follows:

§ 3809.3-2 Noncompliance.

* * * * *

(e) An operator or mining claimant who compiles a record of noncompliance is one who has been served with a notice of noncompliance, whose response period has passed, and who has not commenced the actions required by the authorized officer within the time frames set forth in the notice of noncompliance. An operator or mining claimant with a record of noncompliance will continue in noncompliance status until the actions required in the notice of noncompliance have been completed. Any operator or mining claimant with a record of noncompliance must submit a plan of operations within 30 days under § 3809.1-9 of this subpart for all existing and subsequent operations that would otherwise be conducted pursuant to a notice under § 3809.1-3 of this subpart. Operators or mining claimants with a record of noncompliance will be required to post financial guarantees with the authorized officer under § 3809.1-9 within 90 days after notification for all existing disturbance for which said operators or mining claimants are responsible. Failure to post such financial guarantees within the prescribed 90 days will result in the withdrawal of approval of all existing plans of operation, except that the authorized officer may approve actions proposed by an operator with a record of noncompliance to resolve the cause of the noncompliance or to protect public safety or health or prevent further unnecessary or undue environmental degradation. Financial guarantees held by a State will not be acceptable for purposes of this section, and the calculation must be certified at the operator's or mining claimant's expense by a third party professional engineer

registered to practice within the State in which the activities are proposed, and agreed to by the authorized officer. The requirements of this paragraph continue in force until the operator or mining claimant has come into and remained in compliance with them and the regulations of this subpart for a period of not less than 1 calendar year but not more than 3 calendar years. The duration of the requirement will be determined by the State Director.

(f)(1) Any person constituting an operator, mining claimant, or its authorized agent, who knowingly and willfully violates any provision of this subpart is subject to arrest and trial by a United States magistrate and, if convicted, shall be subject to a fine of not more than \$100,000, or the alternate fine provided for in the applicable provisions of 18 U.S.C. 3571, or imprisoned for no more than twelve months, or both.

(2) Any organization constituting an operator, mining claimant, or its authorized agent, that knowingly and willfully violates any provision of this subpart is subject to criminal prosecution and, if convicted, shall be subject to a fine of not more than \$200,000, or the alternative fine provided for in the applicable provisions of 18 U.S.C. 3571.

Appendix 3 - Sample J715 Filing and Claimant Instructions

Instructions for a 3715 filing in Arizona

New regulations (43 CFR 3715) require mining claimants or mining claim operators to get BLM's permission before living on their claims or placing or keeping on their claims permanent or temporary structures, trailers, fences, enclosures, or signs that limit public access. There are no "grandfather" provisions in these regulations. They apply to everyone. To get BLM's permission, you must submit information about the structures, fences, or signs you want on your claim. This information is known as a 3715 filing.

A 3715 filing has two parts. The first part can be a letter, notice or plan of operations sent to the Field Manager of the BLM field office where your mining claim is located. The second part of the filing is a map, not necessarily drawn to scale, showing the locations of all structures, trailers, roads, fences, gates and signs you plan to place on your claim or are already on your claim. This map may be part of a notice or plan of operations. A sample letter and map follow these instructions. **To begin a 3715 filing, please read the regulations, particularly 3715.3-2, and then provide BLM, in the format required by 43 CFR 3715.3 (See Table 2), the following information:**

1. The name and number of the mining claim and the claimant's and operator's name, the approximate legal description of the mining claim, and if you have a plan or notice for the operation.
2. The work you will be doing on the claim and why you need to build or place buildings and fences on public land. Describe all of the buildings or trailers that you have or will place on the claim. Explain if the buildings or trailers are being or will be used for storage, shop facilities, mill buildings, or other purposes. Show that what you are planning to do is reasonably incident to prospecting, mining, or processing minerals. For mill and process facilities give Arizona BLM a diagram of the mill or process circuit, a list of any chemicals to be used in the process, and an estimate of the amount of these chemicals to be used each day or week.
3. Tell why you need to exclude the public from your claim by installing fences, gates, or signs. Be specific. If you need a fence to protect your equipment, list the equipment and forward any photographs, documents or police reports of incidents of theft or vandalism. If you need a fence to protect the public from hazards, list the hazards and give instances where people were placed at risk. If you are required to build a fence, by the Mine Safety and Health Administration, the Occupational Safety and Health Administration, or the State Mine Inspector, forward a copy of the written requirement or order. You are trying to show that to protect yourself from theft or loss or the public from injury you need to limit access to your claim. Also explain how the public can gain access to public lands around your mining claim.
4. If you plan to live on your mining claim, give the exact number of structures that will be lived in and the approximate number of people that will be living on the claim at any time. Show BLM that people must live on the mining claim either to protect your equipment from theft or loss or to protect the public from injury. In isolated and remote areas workers can live on mining claims in order to work an 8-hour shift. In such a case tell BLM the time and transportation mode needed

to reach the claim.

BLM will review your 3715 filing, and at the end of this review will give you a written determination of concurrence (allowing your proposal) or nonconcurrence (not allowing your proposal). If your proposal is not approved, BLM will tell you why it does not meet the conditions of the regulations. You will then be allowed to change your proposal or appeal the decision. BLM will review your revised proposal within 30 business days, unless it concludes that the determination cannot be made until:

- (A) 30 business days after BLM prepares the needed environmental documents, and
- (B) 30 business days after BLM has complied with Section 106 of the National Historic Preservation Act, Section 7 of the Endangered Species Act, or other laws.

BLM Arizona has already completed much of the environmental documentation and analysis for processing your 3715 filing. To take advantage of this documentation you must agree to adopt the performance measures. You do not have to adopt these measures if you decide that some or all of them do not apply to your claim. In such a case, BLM Arizona will prepare a site-specific environmental analysis of your proposal. But by adopting these measures you can greatly speed up the processing of your application. Call an Arizona BLM office for a copy of the standard mining claim use and occupancy stipulations.

The prepared environmental analysis and documentation require that BLM Arizona conduct a wildlife biology investigation and a cultural resources survey for your proposal. BLM Arizona will conduct these surveys before the review of your proposal is complete and will use them to decide if the prepared environmental analysis applies to your operation. The prepared analysis does not apply to wilderness areas, wilderness study areas, Indian Trust lands, or areas of critical environmental concern.

Before BLM will concur with your occupancy, you must do the following:

1. If you are required to post a financial guarantee (a reclamation bond) under 43 CFR 3809, you must submit this guarantee before you begin operations. If you have a mine under a notice and you have or plan to have someone living on your mining claim or if you have leaching operations, then you must prove that you have a financial guarantee, as well as file a financial certification before anyone can begin to live on your claim.
2. Show the permits required by the Environmental Protection Agency (EPA) under the National Pollution Discharge Elimination System (NPDES) have been issued or are not needed for your proposed occupancy.

An NPDES permit is needed for the following facilities:

- Any point-source discharge associated with industrial activity.

Generally an NPDES permit is needed for:

- Process related discharges.
- Discharges of mine drainage as described in 40 CFR 440.
- Storm water runoff not meeting the definition of mine drainage which contacts any overburden, raw material, intermediate products, finished products, byproducts or waste product at a site.
- Storm water runoff from construction sites disturbing 5 or more acres.

EPA regulations at 40 CFR 440 set effluent limitations (numeric values that cannot be exceeded) for process related discharges and mine drainage. Facilities subject to these effluent limitations are permitted on an individual basis.

Storm water discharges may be covered under a general NPDES permit. The general permit requires the submittal of a notice of intent and the implementation of a storm water pollution prevention plan to control pollutants in the discharges.

Construction activities under 5 acres are exempt from the NPDES process but mining activities are not exempt. Runoff from construction activity disturbing 5 or more acres is permitted under a separate general permit specifically for construction projects. In Arizona, BLM will require any claimant/operator, before beginning operations, to contact EPA for either an NPDES permit, a general permit for construction projects or an affirmation from the EPA, in writing, that no permit is needed if the operation will:

- engage in activities involving mining, milling, any kind of mineral processing and/or facility construction or maintenance.
- engage in exploration activities that involve bulk sampling techniques and/or the construction or maintenance of permanent structures or facilities.
- engage in exploration activities involving occupancy that do not involve the construction of permanent structures or facilities but have 5 acres (or more in the case of plans of operation) of unreclaimed disturbance (including access roads).

It is always the claimant/operators responsibility to obtain all necessary NPDES permits. However, Arizona BLM ***will not*** require a claimant/operator to show these permits have been issued before beginning operations when:

- the operations are purely exploration.
and
- the operations do not involve the construction or maintenance of permanent structures or bulk sampling.
and
- the operations involve less than 5 acres of surface disturbance, including access.

For further information regarding NPDES permits, the claimant/operator should contact Terry Oda, Chief of NPDES Permits Office (415-744-1923), Laura Gentile, NPDES mining permits (415-744-1913) or Eugene Bromley, Storm water (415-744- 1906)

3. Contact the Arizona Department of Environmental Quality APP permits section if you submit to BLM a 3715 filing that includes one or more of the following operations or facilities:

- Surface impoundments, including holding, storage settling, treatment, or disposal pits, ponds, and lagoons.
- Solid waste disposal facilities.
- Injection wells.
- Land treatment facilities.
- Facilities that add a pollutant to a salt dome or salt bed formation, dry well, cave, or underground cave or mine.
- Mine tailing piles and ponds.
- Mine leaching operations.
- Septic tank systems with a capacity exceeding 2,000 gallons per day.
- Point source discharges to navigable waters.

The APP permits section will inform you if you need to complete an APP 'determination of applicability' form or submit an APP application for your operation. You will need to give BLM one of the following:

- a. A copy of your completed APP application.
- b. A copy of your APP 'determination of applicability' form after review by the Arizona Department of Environmental Quality, or
- c. A letter stating when you contacted the Arizona Department of Environmental Quality (ADEQ), your ADEQ contact, the facilities discussed, and a statement that no APP permit is needed for your operation.

If you need an APP permit for your operation, the BLM will have to receive a copy of your APP application. BLM will discuss the APP application's closure requirements with the Arizona Department of Environmental Quality to ensure that the APP permit addresses BLM requirements for reclamation and land use after the mine closes. For further information contact:

Arizona Department of Environmental Quality
APP Mining Unit
Water Permits Section
3033 N. Central Ave.
Phoenix, Az. 80012
ph (602) 207-4692

4. Contact both the Arizona State Mine Inspector and the Mine Safety and Health Administration. As required by Titles 18 and 27 of the Arizona Administrative Code, the claimant or operator must submit a "Notice of Start-up, Move, or Stop for Portable Equipment and Mine Operations" whenever operations begin, move, or are suspended. The operator must forward to BLM a copy of the written notification from the Arizona State Mine Inspector that this form was received. For copies of this form contact the ASMI at:

Arizona State Mine Inspector
1700 W. Washington, Suite 400
Phoenix, AZ. 85007
ph. (602) 542-5971

In addition, operators must submit to the Mine Safety and Health Administration (MSHA) form 2000-7. This form establishes, for agency purposes, the legal identity of the operator. The operator/claimant must also file a "start-up notice" with MSHA. This is an informal letter that is filed with MSHA to notify the agency that operations will begin. After operations start, operators must have on-site, at all times, a copy of their 2000-7 form together with their 7 digit MSHA number and copies of the quarterly report, form 7000-2. Copies of the necessary forms are available on a limited basis at some BLM offices, but are always available from MSHA. For additional information or copies of the necessary forms contact MSHA directly at:

U.S. Department of Labor
Mine Safety and Health Administration
63 E. Main, Suite 303
Mesa, AZ. 85201
ph. (602) 649-5452

MSHA generally does not require an operator/claimant to establish a legal identity (submit form 2000-7) or submit a start-up notice when:

- Operation involve only exploration activities in abandoned or inactive mines, such as geologic mapping, chip or channel sampling and long-hole drilling. If it is necessary to begin the rehabilitation of mine workings, such as roads, mine structures or timbering, to perform exploration activities, then the submission of form 2000-7 and a start-up notice is required. In these cases, contact MSHA for further guidance.
- Operations are primarily recreational such as prospecting clubs or other

organizations that derive their profits and/or revenues from dues and fees that are largely independent of the extraction, processing or sale of mineral commodities.

If an operator or claimant stops an operation, moves an operation, or permanently closes it, the operator or claimant must notify MSHA and ASMI of the intent to close or move the operation and ADEQ if the operation is regulated under the APP program.

Your operation may also require a permit from the Army Corps of Engineers (Corps). The Corps evaluates potential effects of materials placed into or removed from jurisdictional wetlands or waters of the United States. The Corps may conduct a jurisdictional delineation to decide if the proposed mining claim use and occupancy are affected by guidelines to determine compliance with Section 404 of the Clean Water Act. Mining under the subject regulations must comply with the Clean Water Act. For information on Section 404 permits contact:

U.S. Army Corp of Engineers
Regulatory Section
3636 N. Central Avenue, Suite 760
Phoenix, AZ. 85012-1936
ph (602) 640-5385

The following pages are a sample 3715 filing that you may use as a pattern for your filing. If you have any questions concerning the proper format for your filing, or the information you will need to supply for your specific case, please contact the BLM.

Mr. John Q. Smith
Field Manager
Bureau of Land Management
123 ABC Street
Anytown, Arizona 85000

Dear Mr. Smith:

I'm sending this letter to you for my 3715 filing on the Lost Frenchman mining claim number AMC 000001. This claim is located north of Phoenix in T6N, R1W in the south half of section 5. The mining that we are doing on the claim is covered by a notice that we filed with your office in August, 1997.

We plan to have three buildings on the mining claim. One is a powder magazine to store explosives, one is for storing chemicals, and one is a processing building. The process I plan to use is vat leaching using sodium cyanide. The chemical storage building will hold the cyanide and a few other chemicals. I included in this letter a complete list of all the chemicals that will be on the claim, and I'm also giving you the Material Safety Data Sheets for those chemicals. I also placed in this letter a drawing showing the process circuit I plan to set up in the process building and about how much of the chemicals I'll need on a daily basis.

We want to put up a fence around all three of these building and a gate on the road leading to the mine. The fences will keep people from getting into or around the powder or chemical storage areas, and I'll also keep some mobile equipment stored in the area. Since my claim is near a couple of county roads, I usually find a lot of people on my claim, and a lot of my equipment has been vandalized. Some small stuff has been stolen, and I've had the sheriff out a couple of times since I filed my notice. Enclosed are pictures of the vandalism and copies of the police reports that were filed.

I also want to put a trailer on my mining claim. I plan to live in this trailer to further protect my equipment from vandalism. Someone will be on the claim at all times. When I'm not there, one of my miners will be living in the trailer because we need to have someone out there 24 hours a day, 365 days a year.

We plan to mine starting in late October of 1997 and we will end mining and begin reclamation in October of 1998. Reclamation will begin at that time and take approximately 6 months. All occupancy will end at that time. A reclamation schedule was included with our notice and you already have our certification of financial guarantee for the reclamation.

The land is clear and open around the claim, and people can reach the public lands north of the claim simply by going around the fenced area. The gate on the road will keep people from driving into the operation. Since the road stops at the mine, a gate just keeps people from driving into the mine workings.

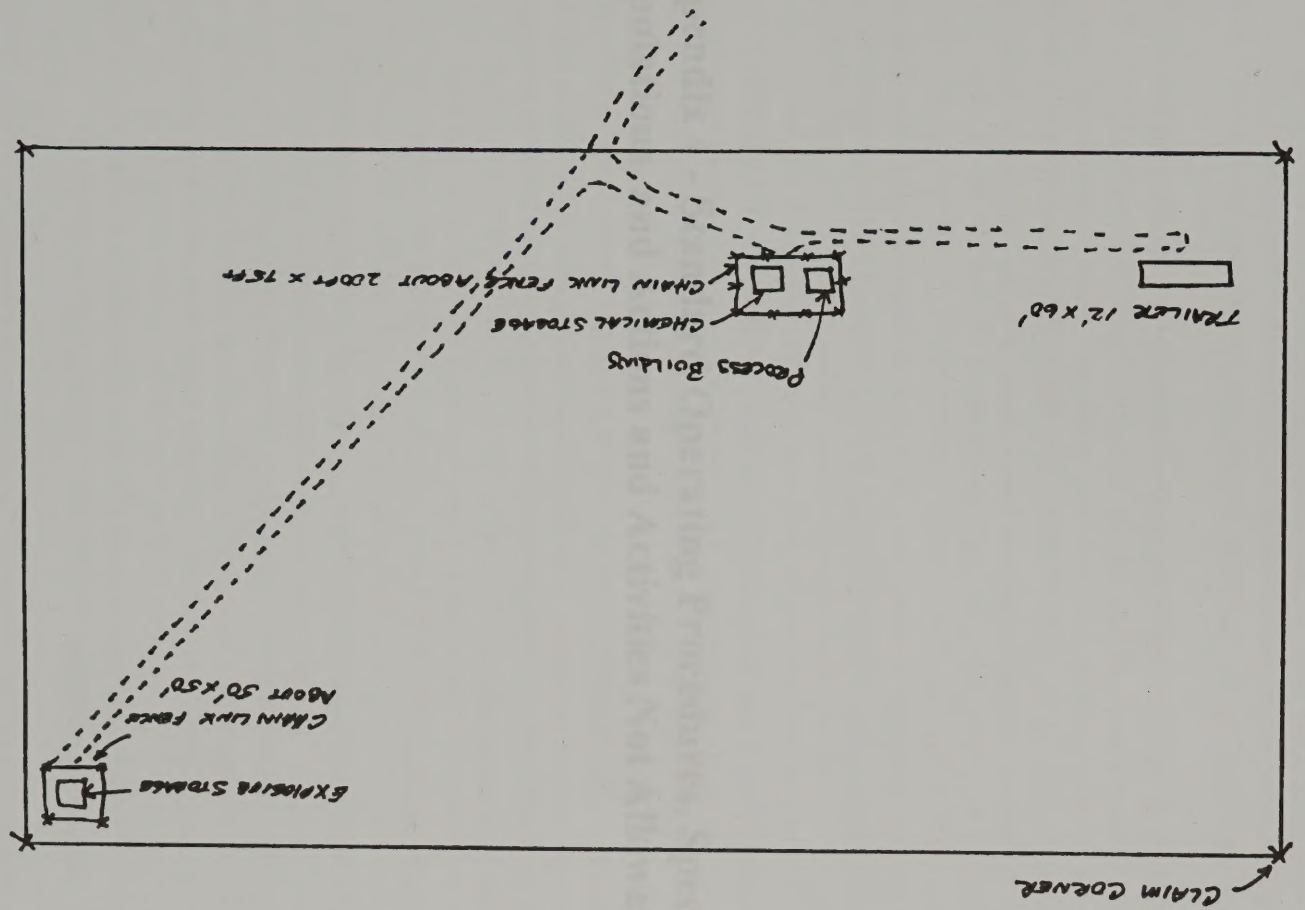
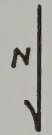
We contacted the ADEQ APP permits section on May 3, 1997, and spoke with APP unit supervisor Mr./Ms. - - -. After discussing our operations, Mr./Ms. - - - said that no APP permit was needed for our operation.

We will be happy to answer any questions and give any more information as needed.

Sincerely,

3715 MAP OF THE LOST FREEDMAN CLAIM

NOT TO SCALE



Appendix 4 - Standard Operating Procedures, Special Stipulations, and Actions and Activities Not Allowed

Standard Operating Procedures

1. Initial filing

Before any action is taken on the ground for activities involving occupancy as defined by 43 CFR 3715, the claimant or operator must have written concurrence from BLM. All existing occupancies, must have written concurrence from BLM to continue. This includes those claimants or operators who qualified for the grace period given by the regulations.

Before concurrence can be given, the mine operator must demonstrate to the satisfaction of the BLM, through the 3715 filing, that the proposed use or occupancy is reasonably incident to prospecting, mining, or processing uses. The activities performed must be substantially regular and reasonably calculated to lead to the extraction and beneficiation of minerals. All operations must comply with all applicable environmental and safety laws. It is the claimant or operator's responsibility to show that his activities meet these conditions.

Claimants or operators who qualified for the grace period will be inspected and final concurrence, if given, will be based on information obtained during the inspection and the claimant's or operator's 3715 filing.

All structures on a mining claim must be included in the filing required by 43 CFR 3715.3-2, if they will be used by the claimant or operator or if the claimant or operator claims the right to possess the structure. Any structure found on a mining claim that is not used by the claimant and is not listed in the 3715 filing is subject to seizure by BLM according to the procedure given by 43 CFR 3715. BLM may, at its discretion, preserve the building for its historical significance or remove the structure and reclaim the lands. If BLM is forced to remove the structure and reclaim the lands, BLM will attempt to find the responsible party and require of that person compensation for the costs of removal and reclamation.

2. Reasonably Incident Decision

BLM will use the 3715 filing to determine that the proposed use or occupancy meets the requirements of the regulations. The proposal must be reasonably incident to prospecting, mining, or processing and uses reasonably incident thereto. In addition, all activities, structures, methods, and equipment proposed must be reasonably incident as defined by the regulations and be appropriate to the geologic terrain, mineral deposit, and stage of development of the property.

BLM will review the 3715 filing with the claimant and, at the discretion of management, inspect the claim or millsite, and/or request more information, including the following:

- Exploration data, including assays, assay procedures, and samples.
- Process flow sheets, including a list of all chemicals to be used together with material safety data sheets and consumption rates.
- A detailed list of all equipment that will be used on the claim with production rates and periods of use.

After reviewing all relevant information and conducting an optional site inspection, BLM will determine if the proposed occupancy is reasonably incident to mining and if residential occupancy can be authorized. BLM will then notify the claimant or operator in writing of this determination. Further analysis, including NEPA analysis, is not required if BLM determines that the proposed occupancy is not reasonably incident.

Step 3, NEPA Analysis.

NEPA analysis for occupancy proposals that are reasonably incident will consist of the following steps.

- BLM will screen proposals to ensure the following:
 - ▶ The proposals involve no restricted lands specifically excluded in this EA.
 - ▶ The proposals contain the common elements of the proposed action of this EA.
 - ▶ The proposals would result only in impacts that have been addressed in this EA.
- If the proposal under analysis fails this preliminary screening, BLM would perform a site-specific analysis. This site-specific analysis may tier to this EA.
 - ▶ BLM will notify the claimant in writing of the performance measures that would apply to the proposed occupancy.

When proposed occupancies pass the initial screening, BLM will do the following:

- BLM will review proposals to decide if they contain some or all of the performance measures developed for the proposed action in this EA.
 - ▶ Performance measures are discussed in step three, but briefly they are mitigation measures or practices that apply to the seven proposed occupancies in the proposed action that lessen the impacts of those occupancies. The performance measures will be released to the public, and operators can decide which, if any, they will voluntarily adopt. Any standards voluntarily adopted would speed the processing of a proposal.
 - ▶ BLM will prepare another NEPA analysis of the proposal by analyzing the impacts of the performance measures that were not adopted.
 - Operations that adopt only some performance measures can go on as proposed if, because of site-specific engineering controls or mitigating measures such as topography or geology, analysis finds no more impacts.
 - If impacts result from failing to adopt all of the performance measures, as a condition of concurrence BLM may impose site-specific performance measures or the standards not voluntarily adopted.
- Before authorizing surface disturbance, BLM will inventory and evaluate all areas to be disturbed or affected for wildlife, vegetation, and cultural resources.
 - ▶ BLM will request information from the Arizona Game and Fish Department's Heritage Data Management System to determine whether any special status species are known to occur in the area. When conditions warrant, BLM will confer with the Arizona Game

and Fish Department on the effects the proposed occupancies will have on wildlife resources.

- ▶ If the biological evaluation reveals that the proposed occupancy may affect threatened or endangered species or designated or proposed critical habitat, BLM will conduct Section 7 consultation/conferencing with the Fish and Wildlife Service before authorizing any activity.
 - ▶ BLM must consult with the State Historic Preservation Officer (SHPO) when potentially significant historical, archeological, or other cultural resources could be affected by the proposed development.
- Operations that use all of the performance measures and conform to the typical operations analyzed in this EA may be processed using an administrative determination.
- ▶ BLM makes an administrative determination that the NEPA documentation previously prepared (this EA) fully covers the site-specific proposal and no more analysis is needed.
 - ▶ Administrative determinations would be used where analysis shows that the proposed occupancy conforms to the proposed action and all impacts involved are addressed in this EA.
 - ▶ BLM will notify the claimant in writing of the performance measures that apply to the proposed occupancy.

Step 4, Required Permits and Financial Guarantees.

The regulations require operators to have in hand all needed permits before operations begin. All occupancies and/or operations must conform to Federal and State environmental standards and, when required, operators must post a financial guarantee before surface disturbance begins.

At the discretion of the Field Manager, BLM may require the operator or claimant to prove that all needed permits have been issued before concurring with the occupancy proposal and any time after operations begin. Generally, BLM will not require a claimant or operator to prove these permits have been issued. But, Arizona BLM will require the claimant or operator to show the permits required by the Environmental Protection Agency (EPA) under the National Pollution Discharge Elimination System (NPDES) and by ADEQ under the Aquifer Protection Program (APP). In addition, Arizona BLM will require the claimant or operator to contact the Mine Safety and Health Administration and the Arizona State Mine Inspector before beginning operations.

The following list includes the facilities and systems that must be permitted under the NPDES program as well as those that can be exempted. The claimant or operator must review this list and determine if any of the processes or facilities fit into a category that must be permitted under NPDES. If the claimant or operator's proposed processes or facilities appear to need an NPDES permit, the claimant must contact the EPA Region IX, Chief of the NPDES Permits Office. The EPA will then decide if the claimant needs an NPDES permit. The operator or claimant must inform BLM as to whether an NPDES permit will be required for the proposed facilities or operations. If EPA determines that a permit is needed, the operator or claimant must submit a copy of the NPDES application and a copy of the final permit to BLM.

An NPDES permit is needed for the following facilities:

- Any point-source discharge associated with industrial activity.

Generally an NPDES permit is needed for:

- Process related discharges.
- Discharges of mine drainage as described in 40 CFR 440.
- Storm water runoff not meeting the definition of mine drainage which contacts any overburden, raw material, intermediate products, finished products, byproducts or waste product at a site.
- Storm water runoff from construction sites disturbing 5 or more acres.

EPA regulations at 40 CFR 440 set effluent limitations (numeric values that cannot be exceeded) for process related discharges and mine drainage. Facilities subject to these effluent limitations are permitted on an individual basis.

Storm water discharges may be covered under a general NPDES permit. The general permit requires the submittal of a notice of intent and the implementation of a storm water pollution prevention plan to control pollutants in the discharges.

Construction activities under 5 acres are exempt from the NPDES process but mining activities are not exempt. Runoff from construction activity disturbing 5 or more acres is permitted under a separate general permit specifically for construction projects. In Arizona, BLM will require any claimant/operator, before beginning operations, to contact EPA for either an NPDES permit, a general permit for construction projects or an affirmation from the EPA, in writing, that no permit is needed if the operation will:

- engage in activities involving mining, milling, any kind of mineral processing and/or facility construction or maintenance.
- engage in exploration activities that involve bulk sampling techniques and/or the construction or maintenance of permanent structures or facilities.
- engage in exploration activities involving occupancy that do not involve the construction of permanent structures or facilities but have 5 acres (or more in the case of plans of operation) of unreclaimed disturbance (including access roads).

It is always the claimant/operators responsibility to obtain all necessary NPDES permits. However, Arizona BLM **will not** require a claimant/operator to show these permits have been issued before beginning operations when:

- the operations are purely exploration.
- and**
- the operations do not involve the construction or maintenance of permanent structures or bulk sampling.

and

- the operations involve less than 5 acres of surface disturbance, including access.

For further information regarding NPDES permits, the claimant/operator should contact Terry Oda, Chief of the NPDES Permits Office (415-744-1923), Laura Gentile, NPDES mining permits (415-744-1913) or Eugene Bromley, Storm water (415-744-1906)

The following lists include the facilities, processes, and septic systems that must be permitted under an individual APP permit as well as those that can be exempted or general permitted under APP. The claimant or operator must review these lists and determine if any of the processes or facilities fit into a category that must be permitted under an individual APP permit. If the claimant or operator's proposed processes or facilities appear to need an individual APP permit, the claimant must contact the ADEQ APP permits section. The ADEQ APP permits section will then decide if the claimant needs to submit either an APP "determination of applicability" form or an APP application. The operator or claimant must inform BLM as to whether an individual APP permit will be required for the proposed facilities or operations. If ADEQ determines that an individual APP permit is needed, the operator or claimant must submit a copy of the APP application to BLM. For information on obtaining APP permits contact:

Arizona Department of Environmental Quality
APP Mining Unit
Water Permits Section
3033 N. Central Ave.
Phoenix, Az. 80012
ph (602) 207-4692

An individual or area-wide APP permit is needed for the following facilities:

- Surface impoundments including holding, storage settling, treatment or disposal pits, ponds and lagoons.
- Solid waste disposal facilities.
- Injection wells.
- Land treatment facilities.
- Facilities that add a pollutant to a salt dome formation, salt bed formation, dry well, or underground cave or mine.
- Mine tailing piles and ponds.
- Mine leaching operations.
- Septic tank systems with a capacity of greater than 20,000 gallons per day.
- Septic tank systems that have a capacity of between 2,000 and 20,000 gallons per day and do not meet the requirements of either A.A.C. R18-9-126.B or A.A.C. R18-9-126.C.
- Point source discharges to navigable waters.

The following facilities and operations may be general permitted under the APP program:

- Storm water impoundments that are regulated under an individual National Pollutant Discharge Elimination System (NPDES) permit or a general Storm water NPDES permit.
- Discharge of wash water from sand and gravel operations or placer mining operations if only physical processes are employed and no hazardous substances, other than those naturally occurring, have been added or exposed during the operation.
- Septic systems that operate at less than 2,000 gpd.
- Septic systems that operate between 2,000 gpd and 20,000 gpd and that have been reviewed by the ADEQ APP permits section and meet the conditions of either A.A.C. R18-9-126.B or A.A.C. R18-9-126.C.

The facilities that are exempt from the APP program are listed in the Arizona Revised Statutes (A.R.S.) 49-250.B as follows:

- Household and domestic activities.
- Household gardening and watering activities.
- Noncommercial use of consumer products generally available to the public.
- Ponds for watering livestock and wildlife.
- Mining overburden returned to the excavation site, including any common material that has been excavated and removed from the excavation site and has not been subjected to any chemical or leaching agent or process of any kind.
- Leachate resulting from the direct, natural infiltration of precipitation through undisturbed regolith or bedrock if pollutants are not added to the leachate as a result of any material or activity placed or conducted by man on the ground surface.
- Facilities that have ceased operation prior to before January 1, 1986.
- Storage, treatment, or disposal of inert material, i.e., broken concrete, asphaltic pavement, manufactured asbestos-containing products, brick, rock, gravel, soil, and materials that, when subjected to a water leach test that is designed to approximate natural infiltrating waters, will not leach substances in concentrations that exceed numeric aquifer quality standards.
- Structures that are designed and constructed not to discharge, which and that are built on an impermeable barrier that can be visually inspected for leakage.
- Pipelines and tanks designed, constructed, operated, and regularly maintained so as not to discharge.
- Surface impoundments for the containment of uncontaminated Storm water, except for Storm water impoundments that are regulated under an NPDES permit and to which a general permit under APP applies.

As required by Titles 18 and 27 of the Arizona Administrative Code, the claimant or operator must submit a "Notice of Start-up, Move, or Stop for Portable Equipment and Mine Operations" whenever operations begin, move, or are suspended. The operator must forward to BLM a copy of the written notification from the Arizona State Mine Inspector that this form was received.

For copies of this form contact the ASMI at:

Arizona State Mine Inspector
1700 W. Washington, Suite 400
Phoenix, AZ. 85007
ph. (602) 542-5971

In addition, operators must submit to the Mine Safety and Health Administration (MSHA) form 2000-7. This form establishes, for agency purposes, the legal identity of the operator. The operator/claimant must also file a "start-up notice" with MSHA. This is an informal letter that is filed with MSHA to notify the agency that operations will begin. After operations start, operators must have on-site, at all times, a copy of their 2000-7 form together with their 7 digit MSHA number and copies of the quarterly report, form 7000-2. Copies of the necessary forms are available on a limited basis at some BLM offices, but are always available from MSHA. For additional information or copies of the necessary forms contact MSHA directly at:

U.S. Department of Labor
Mine Safety and Health Administration
63 E. Main, Suite 303
Mesa, AZ. 85201
ph. (602) 649-5452

MSHA generally does not require an operator/claimant to establish a legal identity (submit form 2000-7) or submit a start-up notice when:

- Operation involve only exploration activities in abandoned or inactive mines, such as geologic mapping, chip or channel sampling and long-hole drilling. If it is necessary to begin the rehabilitation of mine workings, such as roads, mine structures or timbering, to perform exploration activities, then the submission of form 2000-7 and a start-up notice is required. In these cases, contact MSHA for further guidance.
- Operations are primarily recreational such as prospecting clubs or other organizations that derive their profits and/or revenues from dues and fees that are largely independent of the extraction, processing or sale of mineral commodities.

If an operator or claimant stops an operation, moves an operation, or permanently closes it, the operator or claimant must notify MSHA and ASMI of the intent to close or move the operation and ADEQ if the operation is regulated under the APP program.

Operators or claimants who conduct operations under a notice must give BLM a certification, as required by 43 CFR 3809.1-9, that a financial guarantee exists to ensure reclamation. At any time BLM may ask the notice-level operator or claimant to show the existence of this guarantee. Before agreeing to allow an operation to proceed, BLM Arizona will require the operator or claimant to show the existence of this guarantee when proposed operations involve residential occupancy (making a home) or leaching operations. A copy of the regulations in 43 CFR 3809.1-

9 is contained in Appendix 2.

Step 5, Once Occupancies or Uses Begin.

When BLM concurs with an occupancy, the written concurrence must be kept on the mine property and shown to any BLM employee asking to see it.

BLM will use the Compliance Assessment - Safety, Health, and the Environment Protocol Manual for the Bureau of Land Management and the Safety and Health Management BLM Manual Handbook (H1112-1) as guidelines for inspecting facilities on a mining claim. BLM uses these manuals to inspect its operations and facilities. These documents are reference guides and do not apply requirements above those found in the regulations.

If during inspections, BLM discovers that operations or facilities are not maintained or operated according to regulations or if reasonably incident activities cease and BLM inspections reveal that observable on-the-ground activities have stopped, BLM will employ the enforcement actions in 43 CFR 3715.7-1.

Performance Measures

1. Facilities and Equipment: All facilities and equipment on a mining claim or millsite must be appropriate and reasonably incident to prospecting, mining, or processing operations. All equipment and facilities must be presently operable, subject to the need for reasonable assembly, maintenance, repair, or fabrication of replacement parts. Facilities, methods and equipment must be appropriate to the terrain, mineral deposit, and stage of mineral development. BLM will utilize the Compliance Assessment - Safety, Health, and the Environment Protocol Manual for the Bureau of Land Management and/or the Safety and Health Management BLM Manual Handbook (H1112-1) for guidelines for the inspection of facilities (excluding residential facilities) on a mining claim.

All structures used and/or occupied by a mining claimant or operator must be noted in the 3715 filing. Any structures that existed before the subject regulations, not claimed on a 3715 filing may become, at the discretion of management, the property of the United States. If an operator/claimant claims the right to possess and use a pre-existing building on his/her claim, and if this structure is determined by BLM to be historically significant, BLM may require the operator/claimant to restore the structure to its condition prior to the use or occupancy..

If at any time, reasonably incident activities cease, and inspections by BLM personnel reveal that observable on-the-ground activities have stopped, BLM may terminate the concurrence and order all or part of the use and occupancy to stop and be removed from the public lands.

Single structures for the storage of compatible chemicals and housing of equipment or supplies will be encouraged over the use of several small outlying structures when practical. Temporary structures such as tents, campers, or trailer homes will be encouraged over the use of permanent structures such as buildings, homes or cabins. When practical, you must use flat lying areas, with

low erosion potential, as the preferred site for all facilities. All operations must have at least one (1) ABC type fire extinguisher on site at all times.

BLM's written concurrence for the occupancy must be kept on the mine property and presented to any BLM personnel requesting to see it.

All operations must be kept neat, clean and free of debris. The facilities must present a safe work environment for the employees and facilities must be constructed to meet all applicable electrical, mechanical, safety and public health codes and/or regulations. All operations must be conducted in strict accordance with all applicable Occupational Safety and Health Administration (OSHA) and Mine Safety and Health Administration (MSHA) regulations and the Arizona Mining Code administered by the Arizona State Mine Inspector (ASMI).

2. Vehicles: All automobiles and motor homes on mining claims or millsites must have current registration. All off-highway motor vehicles (any motorized vehicle when operated off of highways on either land, water, snow, or ice) must have current registration if used on roads outside of the mining claim. BLM off-highway vehicle designations must be followed outside of the mining claim. In addition, the claimant or operator will allow no vehicle or piece of equipment to be parked or positioned in a way that impedes the normal flow of traffic.

3. Structure Condition: The exterior of all buildings (including roofs) and trailers on public lands and other related outdoor structures must be in good physical condition, well maintained, well painted or otherwise treated to protect against deterioration and kept clean and in good repair. BLM may specify paint colors to limit visual impacts. The operator is responsible to insure that all structures meet State, county, or local electrical, mechanical, safety and public health codes.

4. Chemical Storage: All chemicals must be stored, according to Department of Transportation standards, in approved containers with proper labeling. Rusted, dented, leaking or otherwise damaged containers must be removed from the public lands. All buildings used for the storage of chemicals must be placarded and storage of process reagents in quantities exceeding a 30 day supply will not be allowed without additional NEPA analysis. When the claimant/operator requests a process chemical inventory that does not exceed a 30 day supply the claimant/operator must demonstrate the need for the inventory requested in the 43 CFR 3715 filing. This restriction does not apply to household chemicals or chemicals stored in quantities less than the CERCLA reportable quantity (40 CFR 302). Chemical and fuel storage facilities on public lands must be used to store only those chemicals and fuels essential for mining, milling, and processing operations occurring on the public lands. Incompatible chemicals must be protected from each other and stored in a manner that does not present a hazard. All operations must be conducted in strict accordance with all applicable Occupational Safety and Health Administration (OSHA) and Mine Safety and Health Administration (MSHA) regulations and the Arizona Mining Code administered by the Arizona State Mine Inspector (ASMI). Operators must submit a complete list of all the chemicals they plan to store on their claims or millsites with Material Safety Data Sheets. BLM through its inspection program, will monitor operations to see that only essential chemicals, in appropriate quantities, are stored on site.

5. Fuel and Petroleum Product Storage: All petroleum product storage tanks and barrels, placed above ground, must be in a bermed area. The bermed area must be lined with an impervious lining. The bermed area must be able to contain 110% of the capacity of the tank(s) and/or barrels. Facilities that store 1320 gallons of oil or more or 660 gallons in a single tank must have a Spill Prevention Control and Countermeasures Plan (SPCC) 40 CFR 112.20 (a). These plans must be developed and then approved by a registered professional engineer. The SPCC plan must determine if the facility can cause "substantial harm to the environment". If it does, then a Facility Response Plan is also required.

6. Mobile Homes: No permanent foundations will be erected for mobile homes. No mobile home will have an enclosed deck or add-on room. Porches may be installed, but any porch will be easily removable from the mobile home. Porches will not be enclosed with any material, except for screening. Roll-up sunshades are also permitted. Mobile homes must have at least 10 feet between them.

7. Authorized Number, Types and Uses: The mine operator will not exceed the number or type of structures specified in the approved 3715 filing. All structures must be removed within the time frames stated in the 3715 filing. The operator/claimant must furnish the BLM a copy of the Aquifer Protection Permit before operations begin, whenever an APP is required.

BLM will coordinate with the claimant or operator to ensure that the number of people required to reside on a mining claim or millsite will be sufficient to perform the tasks of mining and/or milling and to provide for site security. BLM will also work with the claimant or operator to insure that only the number of people required for operations and site security will be in residence (making a home) on the claim at any time. Based on this consultation and the subsequent environmental analysis, BLM will specify the maximum number of people, including family members, that can reside on the claim for more than 14 days in any 90 day period.

8. Beginning operations: As required by Titles 18 and 27 of the Arizona Administrative Code, the claimant or operator must submit a "Notice of Start-up, Move, or Stop for Portable Equipment and Mine Operations" whenever operations begin, move or are suspended. It is the operator's responsibility to send BLM a copy of the written notification from the Arizona State Mine Inspector that this form was received.

9. Tanks: Liquid Petroleum Gas storage, used for household purposes, will not exceed one hundred and twenty five (125) gallons at each mobile home, cabin, or house. Each tank will be installed, mounted, and maintained in a way that meets all applicable safety code provisions. At a minimum this means chained to the structure.

10. Appliances and Yard Furniture: Except water softeners, evaporative coolers and air conditioners, no household appliances of any kind will be installed or stored outside of a structure. Only furniture designed and constructed for exterior use is permitted outdoors. Tables, grills, and fire-containing devices will be repaired as necessary to assure proper function, rigidity, support and appearance.

11. Fire Prevention: Consistent with all applicable laws and subject to reclamation, vegetation must be cleared for a minimum distance of:

- 30 feet from all structures.
- 15 feet from any site on which a fire will be built and flammable ground litter must be cleared for at least a 5 foot radius around the fire.
- 15 feet from any site where welding, grinding, or any other spark producing operation will be performed.

Spark arrestors must be used on chainsaws, quad-runners and motorcycles.

12. Grounds: Grounds will be well maintained, safe, uncluttered, and free of litter and debris. All operations will provide a clean, and maintained view for the public from any roadways or thoroughfares by which the public may approach or pass mining operations on BLM lands.

13. Pets: Nonessential animals and/or free-roaming pets or animals are not allowed.

14. Waste and Sewage Handling and Removal: The term "waste" as used herein means all discarded matter including, but not limited to human waste, trash, garbage, refuse, petroleum products, ashes and equipment. Refuse will be stored in receptacles that have covers and lids, are painted, undented, waterproof, and both vermin and raven proof. Wastes will be disposed of in accordance with local laws. This should be an ongoing effort and unused equipment, trash, refuse, and litter should be removed periodically to maintain the highest aesthetic standards achievable during mining operations. The mine operator will provide an effective system for the collection and disposal of garbage and trash. This will be done by contracting with a trash removal firm, or with appropriate public entities, or through self efforts of the operator or any combination of these methods as directed by the Field Manager. Wastes shall be disposed of in a sanitary landfill unless otherwise approved by the Field Manager.

All sewage treatment facilities will be constructed and operated in accordance with all necessary permits utilizing accepted engineering practice and procedures. The operator/claimant must have a septic permit from the county in which the septic system is located before the system can be operated.

15. Public Signs: Public signs for which the operator is responsible must be appropriately located, accurate, attractive and well maintained. Permanent signs will be prepared in a professional manner, consistent with BLM standards and must be approved by BLM before installation.

16. Mine Wastes: If mined materials are removed from the public lands for processing, it will be the responsibility of the claimant or operator to insure that wastes generated in processing these materials are not hazardous materials or toxic wastes, if such wastes are to be returned to the public lands for disposal. BLM, at the discretion of the Field Manager, may require sampling of the wastes and subsequent analytic procedures to verify that such wastes are not hazardous materials or toxic wastes. The claimant or operator will pay the costs of sampling and analytic procedures.

17. Explosive Storage: All explosive storage, regardless of the class of explosive or the amount stored inside the magazine, shall meet the requirements of the Arizona Revised Statutes Title 27.

18. Fences: BLM will attempt to keep the public lands open to public entry at all times. But, where public health and safety is a primary concern or it is essential that access be limited to protect valuable mining equipment or supplies from theft or loss, BLM will authorize the placing on public lands of fences, gates, and signs to limit public access. Where public safety is a paramount concern, BLM may, at the discretion of the Field Manager, use administrative procedures to formally close the lands to public entry using the procedures specified by 43 CFR 8364.

Where fences, gates, and signs must be built and maintained for site security or for public safety, the BLM will determine, through a site inspection that such enclosures are reasonable. Should the claimant or operator be ordered to build and maintain fenced enclosures or post signs by either MSHA, OSHA or the SMI, the claimant must provide written proof of such an order to BLM before authorization is given and actual construction can begin. All fences and gates will be constructed to protect livestock and wildlife in the area. Exact specifications for fences and gates will be developed on a site specific basis using information obtained in the biological assessment

performed by BLM. Minimum requirements for fences are in the BLM Manual Handbook H-1741-1, Fencing.

Whenever fences, gates, or signs are placed on the public lands, BLM, will require the claimant or operator to post public directions on the fence or gate showing routes to public lands around or behind the fenced enclosure. The exact nature of the posting to be used will be decided on a case by case basis by the Field Manager. Whenever locked gates are used, BLM will require the claimant or operator to give BLM a key or use a system of double locks.

19. Reclamation: Regulations at 43 CFR 3809.1-1, require that all operations will be reclaimed. Occupancy site reclamation will include, but is not limited to, complete removal of all structures, regrading, replacement of topsoil or growth medium and establishing native vegetation to establish a diverse, effective, and permanent vegetative cover to reflect the post mining land use. All reclamation operations will be conducted in accordance with the BLM Solid Mineral Reclamation Handbook (H-3042-1).

Actions and Activities Not Allowed

The cultivation of crops and establishment of garden plots.

Activities including animal maintenance or pasturage. This includes the construction of corrals, chicken coups, kennels and stables.

The development of small trade or manufacturing concerns, hobby and curio shops, cafes, tourist stands, and hunting and fishing camps.

The storage, treatment, processing, or disposal of non-mineral, hazardous or toxic waste that are generated elsewhere and brought onto the public lands.

Any activities involving recycling or reprocessing of manufactured material such as scrap electronic parts, appliances, photographic film, and chemicals.

Searching for buried treasure, treasure trove or archeological specimens is strictly prohibited by the subject regulations.

Blocking access to the public lands through the placement of berms, wire cables, stones, vegetative debris or other materials placed on roads constructed on public lands.

Living in abandoned busses, truck trailers, other abandoned vehicles, adits, tunnels or caves.

AVERAGE DAILY SEWAGE FLOW

Waste type	Flow (gallons per day)	Flow (cubic feet per day)	Flow (cubic feet per second)
Public Restrooms (toilet)	200	10	0.001
Plants: With bathroom, showers & flush toilets (picnic)	20	1	0.0001
With toilet facilities only (picnic)	40	2	0.0002
Office (person)	25	1.25	0.00014
Meat (room)	125	6.25	0.00072
Restaurant (resident)	75	3.75	0.00043
Mobile home: Family (per resident)	100	5	0.00058
Laundries, self service (machines)	400	20	0.0023
Institutions other than hospitals (person)	75-125	3.75-6.25	0.00043-0.00072
Hotel (room)	125	6.25	0.00072
Hospital (bed)	250-400	12.5-20	0.0014-0.0023
Factory (person)	25	1.25	0.00014
Dwellings: Residential (resident)	100	5	0.00058
Additional kitchen requirements for nonresident boarders	10	0.5	0.000058
Dwellings: Boarding (boarding house) (resident)	10	0.5	0.000058
Cottage with seasonal occupancy (resident)	100	5	0.00058
Community (nonresident member)	100	5	0.00058
Club: Country (resident member)	100	5	0.00058
Town with central bath and toilet facilities (person)	100-200	5-10	0.00058-0.00116
Resort, day and night, with limited plumbing (camp)	100-200	5-10	0.00058-0.00116
Luxury (camp)	100-200	5-10	0.00058-0.00116
Day with no meals served (camp)	100-200	5-10	0.00058-0.00116
Construction (bed)	100	5	0.00058
Campground, overnight with flush toilets and shower (camp)	20	1	0.000116
Camp: Campground, overnight with flush toilets (camp)	20	1	0.000116
3 bedroom, assumes 3 residents etc (camp)	100	5	0.00058
2 bedroom, assumes 2 residents (camp)	100	5	0.00058
Apartment, multiple family (resident)	100	5	0.00058
Alton (passenger)	100	5	0.00058
Sewage flow			

Appendix 5 - Average Daily Sewage Flows

AVERAGE DAILY SEWAGE FLOW

Type of Establishment (unit basis)	Sewage Flow (gallons per unit per day)
Airport (passenger)	4
Apartments, multiple family (resident)	100
1 bedroom, assume 2 residents,	
1 bedrooms, assume 3 residents, etc.	
Camp: Campground, overnight with flush toilets (camper)	25
Campground, overnight with flush toilets and shower (camper)	50
Construction (bed)	50
Day with no meals served (camper)	15
Luxury (camper)	100-150
Resorts, day and night, with limited plumbing (camper)	50
Tourist with central bath and toilet facilities (person)	35
Clubs: Country (resident member)	100
Country (nonresident member)	25
Cottages with seasonal occupancy (resident)	100
Dwellings: Boarding of rooming houses (resident)	100
Additional kitchen requirements for nonresident boarders	10
Dwellings: Residential (resident)	100
Factory (person)	25
Hospital (bed)	250-400
Hotel (room)	125
Institutions other than hospitals (person)	75-125
Laundries, self service (machine)	400
Mobile Home: Family (per resident)	100
Retirement (resident)	75
Motel (room)	125
Office (person)	25
Picnic: With bathhouses, showers & flush toilets (picnicker)	20
With toilet facilities only (picnicker)	10
Public Restrooms (toilet)	200

Type of Establishment (unit basis)	Sewage Flow (gallons per unit per day)
Restaurant (seat)	30
per meal served	100
Schools: Boarding (pupil)	100
Day with cafeteria, gymnasiums & showers (pupil)	25
Day with cafeteria, but no gymnasiums or showers (pupil)	20
Day without cafeteria, gymnasiums or showers (pupil)	15
Service Station (bay)	1000
Shopping Center (square foot)	1
Swimming pool (swimmer)	10
Theaters: Drive-in (car space)	5
Movie (seat)	5
Trailer Park: (also see mobile home)	
Travel with no sewer connection (space)	125
Travel with sewer connection (space)	175

Organic Loading. Base all organic loadings on 200 mg/L BOD5 and 210 mg/L SS.

From: The Aquifer Protection Permit Rules - Appendix I

Appendix 6 - Threatened, Proposed and Candidate Species

LISTED, PROPOSED, AND CANDIDATE SPECIES FOR THE FOLLOWING COUNTY 4/3/97:

NAME: **ARIZONA AGAVE**

STATUS: ENDANGERED

AGAVE ARIZONICA

CRITICAL HABITAT: No RECOVERY PLAN: No CFR: 49 FR 21055, 05-18-1984

DESCRIPTION: HAS ATTRACTIVE ROSETTES OF BRIGHT GREEN LEAVES WITH DARK
MAHOGANY MARGINS. FLOWER: BORNE ON SUB-UMBELLATE
INFLORESCENCES. ELEVATION
RANGE: 3000-6000 FT.

COUNTIES: GILA, YAVAPAI, MARICOPA

HABITAT: TRANSITION ZONE BETWEEN OAK-JUNIPER WOODLAND & MOUNTAIN MAHOGANY-OAK
SCRUB

SCATTERED CLONES IN NEW RIVER MOUNTAINS AND SIERRA ANCHA. USUALLY FOUND ON
STEEP, ROCKY SLOPES. POSSIBLY MAZATAL MOUNTAINS. SHOULD BE LOOKED FOR
WHEREVER THE RANGES OF *Agave toumeyana* var. *bella* AND *Agave chrysantha*
OVERLAP.

NAME: **ARIZONA CLIFFROSE**

STATUS: ENDANGERED

PURSHIA SUBINTEGRA

CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 49 FR 22326 5-29-84

DESCRIPTION: EVERGREEN SHRUB OF THE ROSE FAMILY (ROSEACEAE). BARK PALE
SHREDDY, YOUNG TWIGS WITH DENSE HAIRS. LEAVES 1-5 LOBES AND
EDGES CURL DOWNWARD (REVOLUTE). FLOWERS: 5 WHITE OR YELLOW
PETALS <0.5 INCH LONG
ELEVATION
RANGE: <4000 FT.

COUNTIES: GRAHAM YAVAPAI MARICOPA MOHAVE

HABITAT: CHARACTERISTIC WHITE SOILS OF TERTIARY LIMESTONE LAKEBED DEPOSITS.

WHITE SOILS OF TERTIARY LIMESTONE LAKEBED DEPOSITS CAN BE SEEN FROM A DISTANCE.

NAME: **ARIZONA HEDGEHOG CACTUS**

ECHINOCEREUS TRIGLOCHIDIATUS ARIZONICUS

STATUS: ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: No CFR: 44 FR
61556, 10-15-1979

DESCRIPTION: DARK GREEN CYLINDROID 2.5-12 INCHES TALL, 2-10 INCHES IN
DIAMETER, SINGLE OR IN CLUSTERS. 1-3 GRAY OR PINKISH CENTRAL
SPINES LARGEST DEFLEXED AND 5-11 SHORTER RADIAL SPINES.
ELEVATION
FLOWER: BRILLIANT RED, SIDE OF STEM IN APRIL-MAY RANGE: 3700-5200 FT.

COUNTIES: MARICOPA, GILA, PINAL

HABITAT: ECOTONE BETWEEN INTERIOR CHAPARRAL AND MADREAN EVERGREEN WOODLAND

OPEN SLOPES, IN NARROW CRACKS BETWEEN BOULDERS, AND IN UNDERSTORY OF SHRUBS.
THIS VARIETY IS BELIEVED TO INTERGRADE AT THE EDGES OF ITS DISTRIBUTION WITH
VARIETIES *MELANCANTHUS* AND *NEOMEXICANUS* CAUSING SOME CONFUSION IN
IDENTIFICATION.

NAME: **BRADY PINCUSHION CACTUS** *PEDIOCACTUS BRADYI*

CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 44 FR 61784, 10-26-1979

STATUS: ENDANGERED

DESCRIPTION: SMALL. SEMI-GLOBOSE CACTUS, 2.4 INCHES TALL AND 2 INCHES IN DIAMETER. SPINES ARE WHITE OR YELLOWISH-TAN. THE SPINE CLUSTERS 1-2 CENTRAL SPINES & 14-15 SPREADING RADIAL SPINES. ELEVATION

FLOWER: STRAW YELLOW PRODUCED AT TOP OF THE STEM RANGE: 3850-4500 FT.

COUNTIES: COCONINO

HABITAT: BENCHES & TERRACES IN NAVAJO DESERT NEAR MARBLE GORGE.

SUBSTRATE IS KAIBAB LIMESTONE CHIPS OVER MOENKOPI SHALE AND SANDSTONE SOIL. PLANT COMMUNITY DOMINATED BY SHADSCALE (*ATRIPLEX CONFERTIFOLIA*), SNAKEWEED (*GUTIERREZIA SAROTHRAE*), MORMON TEA (*EPHEDRA VIRIDIS*), AND DESERT TRUMPET (*ERIOGONUM INFLATUM*). PROTECTED BY CITES AND ARIZONA NATIVE PLANT LAW.

NAME: **CANELO HILLS LADIES' TRESSES** *SPIRANTHES DELITESCENS*

CRITICAL HABITAT: No RECOVERY PLAN: No CFR: 62 FR 665, 01-06-97

STATUS: ENDANGERED

DESCRIPTION: SLENDER ERECT MEMBER OF THE ORCHID FAMILY (ORCHIDACEAE). FLOWER: STALK 50 CM TALL, MAY CONTAIN 40 WHITE FLOWERS SPIRALLY ARRANGED ON THE FLOWERING STALK. ELEVATION

RANGE: about 5000 FT.

COUNTIES: COCHISE, SANTA CRUZ

HABITAT: FINELY GRAINED, HIGHLY ORGANIC, SATURATED SOILS OF CIENEGAS ELEVATION

POTENTIAL HABITAT OCCURS IN SONORA, MEXICO, BUT NO POPULATIONS HAVE BEEN FOUND.

NAME: **COCHISE PINCUSHION CACTUS** *CORYPHANTHA ROBBINSCRUM*

STATUS: THREATENED

DESCRIPTION: A SMALL UNBRANCHED CACTUS WITH NO CENTRAL SPINES AND 11-17 WHITE RADIAL SPINES. THE BELL-SHAPED FLOWERS ARE BORNE ON THE ENDS OF TUBERCLES (Protrusions). FLOWERS: BELL SHAPED, PALE YELLOW-GREEN. FRUITS: ORANGE-RED TO RED ELEVATION

RANGE: >4200 FT.

COUNTIES. COCHISE AND SONORA, MEXICO

HABITAT: SEMIDESERT GRASSLAND WITH SMALL SHRUBS, AGAVE, OTHER CACTI, AND GRAMA GRASS.

GROWS ON GRAY LIMESTONE HILLS.

CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 51 FR 952, 1-9-1986

NAME: **HUACHUCA WATER UMBEL** *LILAEOPSIS SCHAFFNERIANA* ssp *RECURVA*

STATUS: ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: No CFR: 62 FR 665, 01-06-97

DESCRIPTION: HERBACEOUS, SEMI-AQUATIC PERENNIAL IN THE PARSLEY FAMILY (UMBELLIFERAE) WITH SLENDER ERECT, HOLLOW, LEAVES THAT GROW FROM THE NODES OF CREEPING RHIZOMES. FLOWER: 3 TO 10 FLOWERED UMBELS ARISE FROM ROOT NODES. ELEVATION

RANGE. 3500-6500 FT.

COUNTIES: PIMA, SANTA CRUZ, COCHISE

HABITAT: CIENEGAS, PERENNIAL LOW GRADIENT STREAMS, WETLANDS

AND IN ADJACENT SONORA, MEXICO, WEST OF THE CONTINENTAL DIVIDE. POPULATIONS ALSO ON FORT HUACHUCA MILITARY RESERVATION.

NAME: JONES' CYCLADENIA

CYCLADENIA HUMILIS VAR JONESII

STATUS: THREATENED CRITICAL HABITAT: No RECOVERY PLAN: No CFR: 51 FR 16530

DESCRIPTION: A LONG LIVED PERENNIAL HERB IN THE DOGBANE FAMILY (Apocynaceae) WITH PINKISH-ROSE FLOWERS. PLANTS REACH 4-6 INCHES TALL AND HAVE ORBICULAR, WIDE-OVAL OR ELLIPTICAL LEAVES. PLANTS OVER WINTER AS SUBTERRANEAN RHIZOMES (roots). ELEVATION RANGE: 4390-6000 FT.

COUNTIES: MOHAVE

HABITAT: MIXED DESERT SCRUB, JUNIPER, OR WILD BUCKWHEAT-MORMON TEA

IT IS FOUND ON GYPSIFEROUS, SALINE SOILS OF THE CUTLER, SUMMERVILLE, AND CHINLE FORMATIONS.

NAME: KEARNEY'S BLUE STAR

AMSONIA KEARNEYANA

STATUS: ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 54 FR 2131, 01-19-1989

DESCRIPTION: A HERBACEOUS PERENNIAL IN THE DOGBANE FAMILY (APOCYNACEAE). THICKENED WOODY ROOT AND MANY PUBESCENT (HAIRY) STEMS THAT RARELY BRANCH. FLOWERS: WHITE TERMINAL INFLORESCENCE IN APRIL & MAY. ELEVATION RANGE: 3600-3800 FT.

COUNTIES: PIMA

HABITAT: WEST-FACING DRAINAGES IN THE BABOQUIVARI MOUNTAINS.

PLANTS GROW IN STABLE, PARTIALLY SHADED, COARSE ALLUVIUM ALONG A DRY WASH IN THE BABOQUIVARI MOUNTAINS. RANGE IS EXTREMELY LIMITED. PROTECTED BY ARIZONA NATIVE PLANT LAW.

NAME. NAVAJO SEDGE

CAREX SPECUICOLA

STATUS: THREATENED CRITICAL HABITAT: Yes RECOVERY PLAN: Yes CFR:

DESCRIPTION: PERENNIAL FORB WITH TRIANGULAR STEMS, ELONGATED RHIZOMES. FLOWER: WHITE JUNE AND JULY

ELEVATION RANGE: 5700-6000 FT.

COUNTIES: COCONINO, NAVAJO, APACHE

HABITAT: SILTY SOILS AT SHADY SEEPS AND SPRINGS

DESIGNATED CRITICAL HABITAT IS ON THE NAVAJO NATION NEAR INSCRIPTION HOUSE RUINS. FOUND AT SEEP SPRINGS ON VERTICAL CLIFFS OF PINK-RED NAVAJO SANDSTONE.

NAME: NICHOLS TURK'S HEAD CACTUS ECHINOCACTUS HORIZONTHALONIUS VAR NICHOLII

STATUS: ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: No CFR: 44 FR 61927, 10-26-1979

DESCRIPTION: BLUE-GREEN TO YELLOWISH-GREEN, COLUMNAR, 18 INCHES TALL, 8

INCHES IN DIAMETER. SPINE CLUSTERS HAVE 5 RADIAL & 3 CENTRAL SPINES, ONE DOWNWARD SHORT; 2 SPINES UPWARD AND RED OR BASALLY GRAY. FLOWER: PINK FRUIT: WOOLLY WHITE
ELEVATION RANGE. 2400-4100 FT.

COUNTIES: PINAL, PIMA, YUMA

HABITAT: SONORAN DESERTSCRUB

FOUND IN UNSHADED MICRO SITES IN SONORAN DESERTSCRUB ON DISSECTED ALLUVIAL FANS AT THE FOOT OF LIMESTONE MOUNTAINS AND ON INCLINED TERRACES AND SADDLES ON LIMESTONE MOUNTAINSIDES.

NAME: **PEEBLES NAVAJO CACTUS** *PEDIOCACTUS PEEBLESIANUS* VAR *PEEBLESIANUS*

STATUS: ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 44 FR 61922, 10-26-1979

DESCRIPTION: VERY SMALL GLOBOSE 1 INCH TALL AND ABOUT 0.75 INCH IN DIAMETER. THE 4 (3-5) RADIAL SPINES ARE ARRANGED IN A TWISTED CROSS AND CENTRAL SPINES ARE ABSENT. FLOWERS YELLOW-GREEN 1 INCH DIAMETER SPRING. ELEVATION RANGE: 5400-5600 FT.

HABITAT: GRAVELY SOILS OF THE SHINARUMP CONGLOMERATE OF THE CHINLE FORMATION

EXTREMELY LIMITED GEOGRAPHIC RANGE. DIFFICULT TO GROW IN CULTIVATION.

COUNTIES: NAVAJO

NAME: **PIMA PINEAPPLE CACTUS** *CORYPHANTHA SCHEERI* *ROBUSTISPINA*

STATUS. ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: No CFR: 57 FR 14374, 04-20-1992

DESCRIPTION: HEMISPHERICAL STEMS 4-7 INCHES TALL 3-4 INCHES DIAMETER. CENTRAL SPINE 1 INCH LONG STRAW COLORED HOOKED SURROUNDED BY 6-15 RADIAL SPINES. FLOWER: YELLOW SALMON OR ELEVATION RARELY WHITE NARROW FLORAL TUBE. RANGE: 2300-5000 FT.

COUNTIES: PIMA, SANTA CRUZ

HABITAT: SONORAN DESERTSCRUB OR SEMI-DESERT GRASSLAND COMMUNITIES

OCCURS IN ALLUVIAL VALLEYS OR ON HILLSIDES IN ROCKY TO SANDY OR SILTY SOILS. THIS SPECIE CAN BE CONFUSED WITH JUVENILE BARREL CACTUS (*FEROCACTUS*). HOWEVER, THE SPINES OF THE LATER ARE FLATTENED, IN CONTRAST WITH THE ROUND CROSS-SECTION OF THE *CORYPHANTHA* SPINES. ALSO THE AREOLES (SPINE CLUSTERS) OF *CORYPHANTHA* ARE ON TUBERCLES (BUMPS), WHILE THE AREOLES OF *FEROCACTUS* ARE ON RIDGES (RIBS).

NAME: **SAN FRANCISCO PEAKS GROUNDSEL** *SENECIO FRANCISCANUS*

STATUS: THREATENED CRITICAL HABITAT: Yes RECOVERY PLAN: Yes CFR: 48 FR 52743, 11-22-1983

DESCRIPTION: MEMBER OF SUNFLOWER FAMILY, DWARF ALPINE SPECIES 1.2-4 INCHES TALL. LEAVES DEEPLY LOBED. FLOWERS: 0.5 INCH DIAMETER 1-6 YELLOW-GOLD FLOWERS. ELEVATION RANGE: 10900+ FT.

COUNTIES: COCONINO

HABITAT: ALPINE TUNDRA

DESIGNATED CRITICAL HABITAT IS SAN FRANCISCO PEAKS. FOUND ABOVE SPRUCE-FIR AND PINE FORESTS ON TALUS SLOPES.

NAME: **SENTRY MILK-VETCH** *ASTRAGALUS CREMNOPHYLAX* VAR *CREMNOPHYLA*

STATUS: ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: No CFR: 55 FR
50184, 12-5-1990

DESCRIPTION: < 1 INCH HIGH FORMING A MAT 1-10 INCHES IN DIAMETER.
FLOWERS: PALE PURPLE APRIL TO MAY

ELEVATION
RANGE: >4000 FT.

COUNTIES: COCONINO

HABITAT: PINYON-JUNIPER-CLIFFROSE ON A WHITE LAYER OF LIMESTONE

GROWS ON KAIBAB LIMESTONE WITH LITTLE SOIL IN AN UNSHADED OPENING IN PINYON-JUNIPER. POSSIBLY MORE POPULATIONS TO BE FOUND ON SOUTH RIM OF GRAND CANYON AND EAST RIM OF MARBLE GORGE.

NAME: **SILER PINCUSHION CACTUS**

PEDIOCACTUS SILERI

STATUS: THREATENED CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 44 FR
61786, 11-26-1979

DESCRIPTION: SMALL SOLITARY OR CLUSTERED CACTUS GLOBOSE SHAPED ABOUT 5 INCHES TALL AND 3-4 INCHES IN DIAMETER. FLOWERS: YELLOW WITH MAROON VEINS
ELEVATION
RANGE. 2800-5400 FT.

COUNTIES: MOHAVE COCONINO

HABITAT: DESERTSCRUB TRANSITIONAL AREAS OF NAVAJOAN, SAGEBRUSH AND MOHAVE

DESERTS GROWS ON GYPSIFEROUS CLAY AND SANDY SOILS OF MOENKOPI FORMATION.

NAME: **WELSHS MILKWEED**

ASCLEPIAS WELSHII

STATUS: THREATENED CRITICAL HABITAT: Yes RECOVERY PLAN: Yes CFR: 52 FR
41435, 10-28-1987

DESCRIPTION: MILKWEED FAMILY (ASCLEPIADACEAE), RHIZOMATOUS, HERBACEOUS PERENNIAL, 10-40 INCHES TALL WITH LARGE OVAL LEAVES. FLOWERS: CREAM COLORED, ROSE TINGED IN CENTER.

ELEVATION
RANGE: VARIES FT.

COUNTIES: COCONINO

HABITAT: OPEN STABILIZED DESERTSCRUB DUNES AND LEE SIDE OF ACTIVE DUNES

DESIGNATED CRITICAL HABITAT IS IN UTAH.

NAME: **DESERT TORTOISE, MOHAVE POPULATION** *GOPHERUS AGASSIZII* [XEROBATES]

STATUS: THREATENED CRITICAL HABITAT: Yes RECOVERY PLAN: Yes CFR: 55 FR
12178, 04-02-1990; 59 FR 5820, 2-08-94

DESCRIPTION: LARGE HERBIVOROUS REPTILE HAS DOMED SHELL AND ROUND STUMPY HIND LEG. MOST ACTIVE DURING THE SPRING WHEN PLANTS ARE MOST ABUNDANT. SOME ACTIVITY IN LATE SUMMER FOLLOWING MONSOONS. REMAINDER OF YEAR SPENT IN BURROWS.
ELEVATION RANGE: 500-5100 FT.

COUNTIES: MOHAVE

HABITAT: MOHAVE DESERTSCRUB NORTH & EAST OF THE COLORADO RIVER

HABITAT RANGES FROM FLATLANDS TO ROCKY SLOPES AND BAJADAS. SPECIES STILL FOUND THROUGHOUT RANGE, BUT POPULATIONS ARE FRAGMENTED AND DECLINING. THE SONORAN DESERT POPULATION IS A CATEGORY 2 CANDIDATE.

NAME: **NEW MEXICAN RIDGE-NOSED RATTLESNAKE** *CROTALUS WILLARDI OBSCURUS*

STATUS: THREATENED CRITICAL HABITAT: Yes (In New Mexico) RECOVERY PLAN: Yes

CFR: 43 FR 34479, 04-04-1978

DESCRIPTION: SMALL 12-24 INCHES, SECRETIVE GRAYISH-BROWN WITH DISTINCT RIDGE ON THE END OF THE SNOUT. THE DORSAL SURFACE HAS OBSCURE, IRREGULARLY SPACED WHITE CROSSBARS EDGED WITH BROWN (NOT A BOLD PATTERN).
EVALUATION RANGE: 5600-9000 FT.

COUNTIES: COCHISE

HABITAT: PRESUMABLY CANYON BOTTOMS IN PINE-OAK & PINE-FIR COMMUNITIES WITH ALDER, MAPLE, OAK, & BOX ELDER

THE SUBSPECIES HAS NOT BEEN DOCUMENTED IN ARIZONA. HOWEVER, IT HAS BEEN OBSERVED NEAR THE ARIZONA BORDER IN THE PELONCILLO MOUNTAINS AND LIKELY OCCURS IN THE ARIZONA PORTION OF THAT RANGE AS WELL. ANOTHER SUBSPECIES, (*CROTALUS WILLARDI WILLARDI*), IS CONSIDERED A WILDLIFE SPECIES OF SPECIAL CONCERN BY THE STATE OF ARIZONA.

NAME: **KANAB AMBERSNAIL**

OXYLOMA HAYDENI KANABENSIS

STATUS: ENDANGERED: CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 57 FR 13657, 04-17-1992

DESCRIPTION: SMALL 14-19 MM (<0.7 INCH), LIGHT AMBER COLOR, SOMETIMES GRAYISH-AMBER MOTTLED; RIGHT HANDED SHELL

ELEVATION
RANGE: 2,900 FT.

COUNTIES: COCONINO

HABITAT: TRAVERTINE SEEPS AND SPRINGS IN GRAND CANYON NATIONAL PARK

EXTREMELY GEOGRAPHICALLY ISOLATED. THREE HISTORIC POPULATIONS; TWO REMAINING; ONE ON PRIVATE PROPERTY IN UTAH AND ONE IN GRAND CANYON NATIONAL PARK: SPECIES AFFECTED BY OPERATIONS BY GLEN CANYON DAM. ASSOCIATED WITH WATERCRESS, MONKEY FLOWER, AND OTHER WETLAND VEGETATION.

NAME: **BLACK-FOOTED FERRET**

MUSTELA NIGRIPES

STATUS: ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 32 FR 4001, 03-11-67

DESCRIPTION: WEASEL-LIKE, YELLOW BUFF COLORATION WITH SLACK FEET, TAIL TIP, AND EYE MASK. IT HAS A BLUNT LIGHT COLORED NOSE AND IS 15-18 INCHES LONG AND TAIL LENGTH IS @ INCHES.

ELEVATION
RANGE: <10,500 FT.

COUNTIES: COCONINO, APACHE, NAVAJO

HABITAT: GRASSLAND PLAINS GENERALLY FOUND IN ASSOCIATION WITH PRAIRIE DOGS

UNSURVEYED PRAIRIE DOG TOWNS MAY BE OCCUPIED BY FERRETS OR MAY BE APPROPRIATE FOR FUTURE REINTRODUCTION EFFORTS. THE SERVICE DEVELOPED GUIDELINES FOR

SURVEYING PRAIRIE DOG TOWNS WHICH ARE AVAILABLE UPON REQUEST. NO POPULATIONS OF THIS SPECIES CURRENTLY KNOWN TO EXIST IN ARIZONA.

NAME. **HUALAPAI MEXICAN VOLE** *MICROTUS MEXICANUS HUALPAIENSIS*

STATUS: ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 52 FR 36776, 10-01-87

DESCRIPTION: SMALL, CINNAMON-BROWN MOUSE-SIZED WITH SHORT TAIL AND LONG FUR THAT NEARLY COVERS ITS SMALL ROUND EARS.

ELEVATION
RANGE: 3500-7000 FT.

COUNTIES: MOHAVE, COCONINO, YAVAPAI

HABITAT: GRASS/FORB HABITATS IN PONDEROSA PINE, TYPICALLY NEAR WATER.
(CONTINUED BELOW)

ALSO FOUND IN PINYON-JUNIPER & PINE-OAK ASSOCIATIONS WITH A VARIETY OF SHRUBS AND GRASSES. DISTRIBUTION HAS GENERALLY BEEN CONSIDERED TO BE IN THE HUALAPAI MOUNTAIN RANGE AND POSSIBLY IN THE PROSPECT VALLEY AND MUSIC MOUNTAINS. ONGOING RESEARCH SUGGESTS THAT POPULATIONS MAY OCCUR IN THE HUALAPAI NATION, AUBREY CLIFFS, CHINO WASH, SANTA MARIA MOUNTAINS, BRADSHAW MOUNTAINS, ROUND MOUNTAIN, AND SIERRA PRIETA MOUNTAINS. THE TAXON MAY ULTIMATELY BE RENAMED.

NAME: **JAGUAR, UNITED STATES POPULATION** *PANTHERA ONCA*

STATUS. ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: No CFR: 59 FR 35674; 7-13-94; 62 FR 39147; 7-22-97

DESCRIPTION: MUSCULAR CAT WITH RELATIVELY SHORT, MASSIVE LIMBS AND A DEEP CHESTED BODY. CINNAMON-BUFF IN COLOR WITH SLACK SPOTS.

ELEVATION
RANGE: <8000 FT.

COUNTIES. COCHISE, PIMA, SANTA CRUZ

HABITAT: IN ARIZONA, RANGED WIDELY THROUGHOUT A VARIETY OF HABITATS FROM SONORAN DESERT TO CONIFER FORESTS

MOST RECORDS ARE FROM THE MADREAN EVERGREEN-WOODLAND, SHRUB-INVADDED SEMI-DESERT GRASSLAND, AND ALONG RIVERS. HISTORIC RANGE IS CONSIDERED TO HAVE EXTENDED BEYOND THE COUNTIES LISTED ABOVE. REPORTS OF INDIVIDUALS IN THE SOUTHERN PART OF THE STATE CONTINUE TO BE RECEIVED. THIS SPECIES IS LISTED AS ENDANGERED FROM THE U.S.-MEXICO BORDER SOUTH. LAST CONFIRMED INDIVIDUAL WAS KILLED IN ARIZONA IN 1991, SINCE THEN UNCONFIRMED SIGHTINGS AND TRACKS CONTINUE TO BE REPORTED.

NAME: **JAGUARUNDI** *FELIS YAGOUAROUNDI TOLTECA*

STATUS: ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: No CFR: 41 FR 24064; 06-14-76

DESCRIPTION: SMALL CAT WITH SHORT LEGS; SLENDER, ELONGATE BODY; AND LONG TAIL. HEAD SMALL & FLATTENED WITH SHORT ROUNDED EARS. REDDISH-YELLOW OR BLACKISH TO BROWN-GRAY IN COLOR AND WITHOUT SPOTS. ELEVATION RANGE: 3500-6000 FT.

COUNTIES: SANTA CRUZ, PIMA, COCHISE

HABITAT: CAN BE FOUND IN A VARIETY OF HABITATS (SEE BELOW)

SEMI-ARID THORNY FORESTS, DECIDUOUS FORESTS, HUMID PRE-MONTANE FORESTS, UPLAND DRY SAVANNAHS, SWAMPY GRASSLANDS, RIPARIAN AREAS, AND DENSE BRUSH. UNCONFIRMED REPORTS OF INDIVIDUALS IN THE SOUTHERN PART OF THE STATE CONTINUE TO BE

RECEIVED. NO SPECIMENS HAVE BEEN COLLECTED IN ARIZONA.

NAME: **LESSER LONG-NOSED BAT** *LEPTONYCTERIS CURASOAE YERBABUENAE*

STATUS: ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 53 FR 38456, 09-30-88

DESCRIPTION: ELONGATED MUZZLE, SMALL LEAF NOSE, AND LONG TONGUE.
YELLOWISH BROWN OR GRAY ABOVE AND CINNAMON BROWN BELOW.
TAIL MINUTE AND APPEARS TO BE LACKING. EASILY DISTURBED.
ELEVATION

RANGE: <6000 FT.

COUNTIES: COCHISE, PIMA, SANTA CRUZ, GRAHAM, PINAL, MARICOPA

HABITAT: DESERT SCRUB HABITAT WITH AGAVE COLUMNAR NMNAR CACTI PRESENT AS FOOD PLANTS

DAY ROOSTS IN CAVES AND ABANDONED TUNNELS. FORAGES AT NIGHT ON NECTAR, POLLEN, AND FRUIT OF PANICULATE AGAVES AND COLUMNAR CACTI. THIS SPECIES IS MIGRATORY AND IS PRESENT IN ARIZONA, USUALLY FROM APRIL TO SEPTEMBER AND SOUTH OF THE BORDER THE REMAINDER OF THE YEAR.

NAME: **MEXICAN GRAY WOLF**

CANIS LUPUS BAILEYI

STATUS: ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 32 FR 4001, 03-11-67; 43 FR 1912, 03-09-78

DESCRIPTION: LARGE DOG-LIKE CARNIVORE WITH VARYING COLOR, BUT USUALLY A SHADE OF GRAY. DISTINCT WHITE LIP LINE AROUND MOUTH. WEIGH 60-90 POUNDS.
ELEVATION RANGE: 4,000-12,000 FT.

COUNTIES: COCHISE, PIMA, SANTA CRUZ

HABITAT: CHAPARRAL, WOODLAND, AND FORESTED AREAS. MAY CROSS DESERT AREAS.

HISTORIC RANGE IS CONSIDERED TO BE LARGER THAN THE COUNTIES LISTED ABOVE. UNCONFIRMED REPORTS OF INDIVIDUALS IN THE SOUTHERN PART OF THE STATE CONTINUE TO BE RECEIVED. INDIVIDUALS MAY STILL PERSIST IN MEXICO.

NAME: **MOUNT GRAHAM RED SQUIRREL** *TAMIASCIURUS HUDSONICUS GRAHAMENSIS*

STATUS: ENDANGERED CRITICAL HABITAT: Yes RECOVERY PLAN: Yes CFR: 52 FR 20994, 06-03-87; 55 FR 425, 01-05-90

DESCRIPTION: GRAYISH-BROWN TINGED RUSTY OR YELLOWISH ON THE BACK. SUMMER-DARK LATERAL LINE SEPARATES THE LIGHT UNDERSIDES FROM THE GRAY SIDES. EARS ARE SLIGHTLY TUFTED IN THE WINTER AND THE TAIL IS BUSHY. DIET PRIMARILY CONIFER SEEDS. ELEVATION RANGE: >8000 FT.

COUNTIES: GRAHAM

HABITAT: MONTANE UPPER ELEVATION MATURE TO OLD-GROWTH CONIFER FOREST

DISTRIBUTION LIMITED TO THE MIXED CONIFER AND SPRUCE-FIR ASSOCIATIONS IN THE PINALENO MOUNTAINS. CRITICAL HABITAT HAS BEEN DESIGNATED FOR THIS SPECIES.

NAME: **OCELOT**

FELIS PARDALIS

STATUS: ENDANGERED

CRITICAL HABITAT. No RECOVERY PLAN: Yes CFR: 47 FR 31670; 07-21-82

DESCRIPTION: MEDIUM-SIZED SPOTTED CAT WHOSE TAIL IS ABOUT $\frac{1}{2}$ THE LENGTH OF HEAD AND BODY. YELLOWISH WITH SLACK STREAKS AND STRIPES RUNNING FROM FRONT TO BACK. TAIL IS SPOT-RED AND FACE IS LESS

HEAVILY STREAKED THAN THE BACK AND SIDES.

ELEVATION
RANGE: <8000 FT.

COUNTIES: SANTA CRUZ, PIMA, COCHISE

HABITAT: HUMID TROPICAL & SUB-TROPICAL FORESTS, SAVANNAHS, AND SEMI-ARID THORNSCRUB.

MAY PERSIST IN PARTLY-CLEARED FORESTS, SECOND-GROWTH WOODLAND, AND ABANDONED CULTIVATION REVERTED TO BRUSH. UNIVERSAL COMPONENT IS PRESENCE OF DENSE COVER. UNCONFIRMED REPORTS OF INDIVIDUALS IN THE SOUTHERN PART OF THE STATE CONTINUE TO BE RECEIVED.

NAME: **SONORAN PRONGHORN**

ANTILOCAPRA AMERICANA SONORIENSIS

STATUS: ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 32 FR 4001, 03-11-67

DESCRIPTION: BUFF ON BACK AND WHITE BELOW, HOOFED WITH SLIGHTLY CURVED BLACK HORNS HAVING A SINGLE PRONG. SMALLEST AND PALEST OF THE PRONGHORN SUBSPECIES. ELEVATION RANGE: 2000-4000 FT.

COUNTIES: PIMA, YUMA, MARICOPA

HABITAT: BROAD, INTERMOUNTAIN ALLUVIAL VALLEYS WITH CREOSOTE-BURSAGE & PALO VERDE-MIXED CACTI ASSOCIATIONS

TYPICALLY, BAJADAS ARE USED AS FAWNING AREAS AND SANDY DUNE AREAS PROVIDE FOOD SEASONALLY. HISTORIC RANGE WAS PROBABLY LARGER THAN EXISTS TODAY. THIS SUBSPECIES ALSO OCCURS IN MEXICO.

NAME: **APACHE (ARIZONA) TROUT**

ONCORHYNCHUS APACHE

STATUS: THREATENED CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 40 FR 29864, 07-19-1975

DESCRIPTION: THIS YELLOWISH OR YELLOW-OLIVE CUTTHROAT-LIKE TROUT HAS LARGE DARK SPOTS ON BODY. ITS DORSAL, ANAL, AND CAUDAL FINS EDGED WITH WHITE. IT HAS NO RED LATERAL BAND. ELEVATION RANGE: >5000 FT.

COUNTIES: APACHE, GREENLEE, GILA, GRAHAM, NAVAJO

HABITAT: PRESENTLY RESTRICTED TO COLD MOUNTAIN STREAMS WITH MANY LOW GRADIENT MEADOW REACHES

OCCUPIES STREAM HABITATS WITH SUBSTRATES OF BOULDERS, ROCKS, AND GRAVEL WITH SOME SAND OR SILT THROUGH MIXED CONIFER AND SPRUCE-FIR FORESTS, AND MONTANE MEADOWS AND GRASSLANDS IN THE WHITE MOUNTAINS. ALSO MANAGED AS A SPORT FISH UNDER SPECIAL REGULATIONS.

NAME: **BEAUTIFUL SHINER**

CYPRINELLA FORMOSA

STATUS: THREATENED CRITICAL HABITAT: Yes RECOVERY PLAN: Yes CFR: 49 FR 34490, 8-31-1984

DESCRIPTION: SMALL (2.5 INCHES) SHINY MINNOW AND VERY SIMILAR TO RED SHINER. MALES COLORFUL DURING BREEDING (YELLOW-ORANGE OR ORANGE ON CAUDAL AND LOWER FINS AND BLUISH BODY. ELEVATION RANGE: <4500 FT.

COUNTIES: COCHISE

HABITAT: SMALL TO MEDIUM SIZED STREAMS AND PONDS WITH SAND, GRAVEL, AND ROCK BOTTOMS.

VIRTUALLY EXTIRPATED IN THE UNITED STATES, WITH THE EXCEPTION OF A FEW ISOLATED POPULATIONS ON NATIONAL WILDLIFE REFUGES AND IN MEXICO. SAME CRITICAL HABITAT AS YANQUI CHUB AND CATFISH (SEE 49 FR 34490, 08-31-1984).

NAME: **BONYTAIL CHUB**

GILA ELEGANS

STATUS: ENDANGERED CRITICAL HABITAT: Yes RECOVERY PLAN: Yes CFR: 45 FR 27710, 04-23-1980;

DESCRIPTION: LARGE (12-14 UP TO 24 INCHES) MINNOW CHARACTERIZED BY SMALL HEAD LARGE FINS SLIGHTLY HUMPED BACK AND LONG THIN CAUDAL PEDUNCLE. ELEVATION RANGE: <4000 FT.

COUNTIES: MOHAVE, LA PAZ

HABITAT: WARM SWIFT TURBID MAINSTEM RIVERS OF THE COLORADO RIVER BASIN, RESERVOIRS IN LOWER BASIN

ENDEMIC TO COLORADO RIVER BASIN. RAREST OF COLORADO RIVER FISH. POPULATION AUGMENTATION IS ONGOING IN LAKE MOHAVE AND LAKE HAVASU.

NAME: **COLORADO SQUAWFISH**

PTYCHOCEILUS LUCIUS

STATUS: ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 32 FR 4001, 03-11-1967: 50 FR 13374, 03-21-1994

DESCRIPTION: LARGEST AMERICAN MINNOW (UP TO 6 FEET AND 80 POUNDS) DUSKY-GREEN, SLENDER BODY HAS GOLD FLECKS ON THE DORSAL SURFACE. HEAD LONG AND SLENDER ELEVATION RANGE: <4000 FT.

COUNTIES: GILA, YAVAPAI

HABITAT: WARM, SWIFT, TURBID MAINSTEM RIVERS. PREFERS EDDIES AND POOLS

EXPERIMENTAL NON-ESSENTIAL (TREATED AS PROPOSED THREATENED). NO CRITICAL HABITAT IN ARIZONA.

NAME: **DESERT PUFFISH**

CYPRINODON MACULARIUS

STATUS: ENDANGERED CRITICAL HABITAT: Yes RECOVERY PLAN: Yes CFR: 51 FR 10842, 03-31-1986

DESCRIPTION: SMALL (2 INCHES) SMOOTHLY ROUNDED BODY SHAPE WITH NARROW VERTICAL BARS ON THE SIDES. BREEDING MALES BLUE ON HEAD AND SIDES WITH YELLOW ON TAIL. FEMALES & JUVENILES TAN TO OLIVE COLORED BACK AND SILVERY SIDES. ELEVATION RANGE: <5000 FT.

COUNTIES: LA PAZ, PIMA, GRAHAM, MARICOPA, PINAL, YAVAPAI, SANTA CRUZ

HABITAT: SHALLOW SPRINGS, SMALL STREAMS, AND MARSHES. TOLERATES SALINE & WARM WATER

CRITICAL HABITAT INCLUDES QUITOBAQUITO SPRING, PIMA COUNTY, PORTIONS OF SAN FELIPE CREEK, CARRIZO WASH, AND FISH CREEK WASH, IMPERIAL COUNTY, CALIFORNIA. TWO SUBSPECIES ARE RECOGNIZED: DESERT PUFFISH (*C. m. macularis*) AND QUITOBAQUITO PUFFISH (*C. m. eremus*).

NAME: **GILA TOPMINNOW**

POECILIOPSIS OCCIDENTALIS OCCIDENTALIS

STATUS: ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 32 FR 4001, 03-11-1967

DESCRIPTION: SMALL (2 INCHES), GUPPY-LIKE, LIVE BEARING, LACKS DARK SPOTS ON ITS FINS. BREEDING MALES ARE JET BLACK WITH YELLOW FINS. ELEVATION RANGE: <4500 FT.

COUNTIES: GILA, PINAL, GRAHAM, YAVAPAI, SANTA CRUZ, PIMA, MARICOPA, LA PAZ

HABITAT: SMALL STREAMS, SPRINGS, AND CIENEGAS VEGETATED SHALLOWS

NAME: **GILA TROUT**

ONCORHYNCHUS GILAE

STATUS: ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 32 FR 4001, 03-11-1967

DESCRIPTION: DEEP BODIED WITH FINE PROFUSE SPOTTING ON THE BODY, DORSAL, AND ADIPOSE FINS. DORSAL, ANAL, AND PELVIC FINS EDGED IN WHITE

ELEVATION RANGE: 5000-10000 FT.

COUNTIES: YAVAPAI

HABITAT: SMALL HIGH MOUNTAIN STREAMS

PRESENTLY EXTIRPATED IN ARIZONA, ALTHOUGH A PRESUMED STOCKED POPULATION MAY EXIST IN GAP CREEK.

NAME: **HUMPBACK CHUB**

GILA CYPHA

STATUS: ENDANGERED CRITICAL HABITAT: Yes RECOVERY PLAN: Yes CFR: 32 FR 4001, 03-11-1967; 59 FR 13374, 03-21-1994

DESCRIPTION: LARGE (18 INCH) MINNOW FLATTENED HEAD LONG FLSNOUT, LARGELARGE FINS, AND A VERY LARGE HUMP BETWEEN THE HEAD AND THE DORSAL FIN

ELEVATION
RANGE: <4000 FT.

COUNTIES: COCONINO, MOHAVE

HABITAT: LARGE WARM TURBID RIVERS ESPECIALLY CANYON AREAS WITH DEEP FAST WATER

CRITICAL HABITAT IN GRAND CANYON

NAME: **LITTLE COLORADO SPINEDACE**

LEPIDOMEDA VITTATA

STATUS: THREATENED CRITICAL HABITAT: Yes RECOVERY PLAN: No CFR: 52 FR 35054

DESCRIPTION: SMALL (<4 INCHES LONG) SILVERY MINNOW WHICH IS DARKER ON THE BACK THAN THE BELLY

ELEVATION
RANGE: 4000-8000 FT.

COUNTIES: COCONINO, APACHE, NAVAJO

HABITAT: MODERATE TO SMALL STREAMS IN POOLS AND RIFFLES WITH WATER FLOWING OVER GRAVEL AND SILT

CRITICAL HABITAT INCLUDES EIGHTEEN MILES OF EAST CLEAR CREEK, EIGHT MILES OF CHEVELON CREEK, AND FIVE MILES OF NUTRIOS CREEK

NAME: **LOACH MINNOW**

TIAROGA COBITIS

STATUS: THREATENED CRITICAL HABITAT: Yes RECOVERY PLAN: Yes CFR: 51 FR 39468, 10-28-1986; 59 FR 10898, 03-08-1994

DESCRIPTION: SMALL (<3 INCHES LONG) SLENDER, ELONGATED FISH, OLIVE COLORED WITH DIRTY WHITE SPOTS AT THE BASE OF THE DORSAL AND CAUDAL FINS. BREEDING MALES VIVID RED ON MOUTH AND BASE OF FINS

ELEVATION

RANGE: <7000 FT.

COUNTIES: PINAL, GRAHAM, GREENLEE, GILA, APACHE, NAVAJO, (AZ); GRANT, CATRON, (NM)

HABITAT: BENTHIC SPECIES OF SMALL TO LARGE PERENNIAL STREAMS WITH SWIFT SHALLOW WATER OVER COBBLE & GRAVEL

CRITICAL HABITAT IS IN ARAVAIPA CREEK, BLUE RIVER, CAMPBELL BLUE CREEK, SAN FRANCISCO RIVER, DRY BLUE CREEK, TULAROSA RIVER, EAST WEST AND MIDDLE FORKS OF THE GILA RIVER, AND THE MAINSTEM UPPER GILA RIVER. PRESENTLY FOUND IN ALL CRITICAL HABITAT PLUS WHITE RIVER AND EAGLE CREEKS. CRITICAL HABITAT IS ONLY PROPOSED DUE TO A 1996 10TH CIRCUIT COURT DECISION SETTING ASIDE THE FINAL CRITICAL HABITAT PENDING COMPLIANCE WITH THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA).

NAME: **RAZORBACK SUCKER**

XYRAUCHEN TEXANUS

STATUS: ENDANGERED CRITICAL HABITAT: Yes RECOVERY PLAN: No CFR: 55 FR 21154, 05-22-1990; 59 FR 13374, 03-21-1994

DESCRIPTION: LARGE (UP TO 3 FEET AND UP TO 16 POUNDS) LONG, HIGH SHARP-EDGED KEEL-LIKE HUMP BEHIND THE HEAD. HEAD FLATTENED ON TOP. OLIVE-BROWN ABOVE TO YELLOWISH BELOW. ELEVATION RANGE: <6000 FT.

COUNTIES: GREENLEE, MOHAVE, PINAL, YAVAPAI, YUMA, LA PAZ, MARICOPA (REFUGIA), GILA, COCONINO, GRAHAM

HABITAT: RIVERINE & LACUSTRINE AREAS, GENERALLY NOT IN FAST MOVING WATER AND MAY USE BACKWATERS

SPECIES IS ALSO FOUND IN HORSESHOE RESERVOIR (MARICOPA COUNTY).

NAME: **SONORA CHUB**

GILA DITAENIA

STATUS: THREATENED CRITICAL HABITAT: Yes RECOVERY PLAN: Yes CFR: 51 FR 16042, 04-30-1986

DESCRIPTION: MINNOW (<5 INCHES LONG) MODERATELY CHUBBY, DARK-COLORED FISH WITH TWO PROMINENT BLACK LATERAL BANDS ON THE SIDES AND A DARK OVAL SPOT AT THE BASE OF THE TAIL. BREEDING MALES HAVE RED LOWER FINS AND A ORANGE BELLY ELEVATION RANGE: 3900 FT.

COUNTIES: SANTA CRUZ

HABITAT: PERENNIAL & INTERMITTENT SMALL TO MODERATE STREAMS WITH BOULDERS & CLIFFS

CRITICAL HABITAT IN SYCAMORE CREEK (SANTA CRUZ COUNTY). YANK SPRING TO INTERNATIONAL BORDER, 2.0 Km OF PENASCO CREEK, AND LOWER HALF OF UNNAMED STREAM ENTERING SYCAMORE CREEK ABOUT 2.4 Km DOWNSTREAM FROM YANKS SPRING. SPECIES EXTENDS INTO MEXICO (ALTAR & MAGDELENA RIVERS).

NAME: **SPIKEDACE**

MEDA FULGIDA

STATUS: THREATENED CRITICAL HABITAT: Yes RECOVERY PLAN: Yes CFR: 51 FR 23769, 07-01-1986; 59 FR 10906, 03-08-1994

DESCRIPTION: SMALL (<3 INCHES) SLIM WITH SLIVERY SIDES & 'SPINE' ON DORSAL FIN. BREEDING MALES BRASSY GOLDEN COLOR ELEVATION RANGE: <6000 FT.

COUNTIES: GRAHAM, PINAL, GREENLEE, YAVAPAI, (AZ); GRANT, (NM)

HABITAT: MODERATE TO LARGE PERENNIAL STREAMS WITH GRAVEL COBBLE SUBSTRATES AND MODERATE TO SWIFT VELOCITIES

CRITICAL HABITAT IN ARAVAIPA CREEK, UPPER VERDE RIVER, AND PORTIONS OF GILA RIVER IN NEW MEXICO. PRESENTLY FOUND IN ARAVAIPA CREEK, EAGLE CREEK, VERDE RIVER ABOVE VERDE VALLEY, EAST-WEST- MAIN AND MIDDLE FORKS OF THE GILA RIVER IN NEW MEXICO, AND GILA RIVER FROM SAN PEDRO RIVER TO ASHURST HAYDEN DAM. CRITICAL HABITAT IS ONLY PROPOSED DUE TO A 1996 10TH CIRCUIT COURT DECISION SETTING ASIDE THE FINAL CRITICAL HABITAT PENDING COMPLIANCE WITH THE NATIONAL ENVIRONMENTAL POLICY ACT

NAME: **VIRGIN RIVER CHUB**

GILSEMINUDEDA

STATUS: ENDANGERED CRITICAL HABITAT: Yes RECOVERY PLAN: Yes CFR: 54 FR 35305, 08-24-1989; 60 FR 17296, 04-05-1995

DESCRIPTION: SLENDER, SILVERY MINNOW (8-18 INCHES), WITH SMALL EMBEDDED SCALES GIVING A SMOOTH APPEARANCE TO THE BODY.

ELEVATION

RANGE: < 4,500 FT.

COUNTIES: MOHAVE (AZ), WASHINGTON (UT), AND CLARK (NV)

HABITAT: DEEP SWIFT WATERS BUT NOT TURBULENT SAND & GRAVEL WITH BOULDERS OR IN STREAM COVER

CRITICAL HABITAT MAIN CHANNEL OF THE VIRGIN RIVER. PRESENTLY FOUND IN THE VIRGIN AND MOAPA RIVERS AND THE MOUTH OF BEAVER DAM WASH.

NAME. **WOUNDFIN**

PLAGOPTERUS ARGENTISSIMUS

STATUS: ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 35 FR 16047, 10-13-1970; 60 FR 17296, 04-05-1995

DESCRIPTION: SMALL (4 INCHES) SILVER MINNOW WITH FAIRLY LARGE FINS AND A SHARP DORSAL FIN SPINE.

ELEVATION

RANGE: <4500 FT.

COUNTIES: MOHAVE (AZ), WASHINGTON (UT), AND CLARK (NV)

HABITAT: RUNS AND QUIET WATERS ADJACENT TO RIFFLES OVER SAND AND GRAVEL SUBSTRATES

EXPERIMENTAL POPULATIONS (50 FR 30193, 07-24-1985) DESIGNATED, BUT NOT YET INTRODUCED IN PORTIONS OF VERDE, GILA, SAN FRANCISCO, AND HASSAYAMPA RIVERS AND TONTO CREEK. CRITICAL HABITAT PROPOSED FOR THE VIRGIN RIVER, WHERE THIS SPECIES IS PRESENTLY FOUND. CRITICAL HABITAT HAS BEEN PROPOSED FOR THIS SPECIES.

NAME: **YANQUI CATFISH**

ICTALURUS PRICEI

STATUS: THREATENED CRITICAL HABITAT: Yes RECOVERY PLAN: Yes CFR: 49 FR 34490, 08-31-1984

DESCRIPTION: SIMILAR 70 CHANNEL CATFISH (*Ictalurus punctatus*) EXCEPT ANALFIN BASE IS SHORTER AND THE DISTAL MARGIN OF THE ANAL FIN IS BROADLY ROUNDED WITH 23-25 SOFT RAYS. BODY USUALLY PROFUSELY SPECKLED.

ELEVATION RANGE: 4000-5000 FT.

COUNTIES: COCHISE

HABITAT: MODERATE TO LARGE STREAMS WITH SLOW CURRENT OVER SAND AND ROCK BOTTOMS

CRITICAL HABITAT ALL AQUATIC HABITATS IN THE MAIN PORTION OF SANBERNARDINO NATIONAL WILDLIFE REFUGE

NAME: **YANQUII CHUB**

GILA PURPUREA

STATUS: ENDANGERED CRITICAL HABITAT: Yes RECOVERY PLAN: Yes CFR: 49 FR
34490, 08-31-1984

DESCRIPTION: MEDIUM SIZED MINNOW (<6 INCHES) DARK COLORED, LIGHTER BELOW.
DARK TRIANGULAR CAUDAL SPOT

ELEVATION

RANGE: 4000-6000 FT.

COUNTIES: COCHISE (AZ), MEXICO

HABITAT: DEEP POOLS OF SMALL STREAMS, POOLS, OR PONDS NEAR UNDERCUT BANKS.

CRITICAL HABITAT INCLUDES ALL AQUATIC HABITATS OF THE MAIN PORTION SAN
BERNARDINO NATIONAL WILDLIFE REFUGE.

NAME: **YANQUI TOPMINNOW**

POECILIOPSIS OCCIDENTALIS SONORIENSIS

STATUS: ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 32 FR
4001, 03-11-1967

DESCRIPTION: SMALL (2 INCHES) TOPMINNOW GUPPY-LIKE, LIVE BEARING, LACKING
DARK SPOTS. BREEDING MALES JET SLACK WITH YELLOW FINS.

ELEVATION

RANGE: <4500 FT.

COUNTIES: COCHISE

HABITAT: SMALL TO MODERATE SIZED STREAMS, SPRINGS, & CIENEGAS GENERALLY IN
SHALLOWS

NAME: **AMERICAN PEREGRINE FALCON**

FALCO PEREGRINUS ANATUM

STATUS: ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 35 FR
16047, 10-13-70; 35 FR 8495, 06-02-70

DESCRIPTION: A RECLUSIVE, CROW-SIZED FALCON SLATY BLUE ABOVE WHITISH BELOW WITH
FINE DARK BARRING. THE HEAD IS BLACK AND APPEARS TO BE MASKED OR
HELMETED. WINGS LONG AND POINTED. LOUD WAILING CALLS ARE GIVEN DURING
BREEDING PERIOD. ELEVATION RANGE: 3500-9000 FT.

COUNTIES: MOHAVE COCONINO NAVAJO APACHE SANTA CRUZ MARICOPA COCHISE YAVAPAI
GILA PINAL PIMA GREENLEE GRAHAM

HABITAT: CLIFFS AND STEEP TERRAIN USUALLY NEAR WATER OR WOODLANDS WITH ABUNDANT
PREY

THIS IS A WIDE-RANGING MIGRATORY BIRD THAT USES A VARIETY OF HABITATS.
BREEDING BIRDS ARE YEAR ROUND RESIDENTS. OTHER BIRDS WINTER AND MIGRATE
THROUGH ARIZONA. SPECIES IS ENDANGERED FROM REPRODUCTIVE FAILURE FROM
PESTICIDES.

NAME: **BALD EAGLE**

HALIAEETUS LEUCOCEPHALUS

STATUS: THREATENED CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 60 FR
35999, 07-12-95

DESCRIPTION: LARGE, ADULTS HAVE WHITE HEAD AND TAIL. HEIGHT 28- 38";
WINGSPAN 66-96". 1-4 YRS.. DARK WITH VARYING DEGREES OF
MOTTLED BROWN PLUMAGE. FEET BARE OF FEATHERS..

ELEVATION RANGE: VARIES FT.

COUNTIES: YUMA, LA PAZ, MOHAVE, YAVAPAI, MARICOPA, PINAL, COCONINO, NAVAJO,
APACHE, SANTA CRUZ, PIMA, GILA, GRAHAM

HABITAT: LARGE TREES OR CLIFFS NEAR WATER (RESERVOIRS, RIVERS AND STREAMS) WITH
ABUNDANT PREY

SOME BIRDS ARE NESTING RESIDENTS WHILE A LARGER NUMBER WINTERS ALONG RIVERS AND RESERVOIRS. AN ESTIMATED 200 TO 300 BIRDS WINTER IN ARIZONA. ONCE ENDANGERED (32 FR 4001, 03-11-1967; 43 FR 6233, 0214-78) BECAUSE OF REPRODUCTIVE FAILURES FROM PESTICIDE POISONING AND LOSS OF HABITAT, THIS SPECIES WAS DOWN LISTED TO THREATENED ON AUGUST 11, 1995. ILLEGAL SHOOTING, DISTURBANCE, LOSS OF HABITAT CONTINUES TO BE A PROBLEM.

NAME: **BROWN PELICAN**

PELECANUS OCCIDENTALIS

STATUS: ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 35 FR 16047, 10-13-70; 35 FR 18320, 12-02-70

DESCRIPTION: LARGE DARK GRAY-BROWN WATER BIRD WITH A POUCH UNDERNEATH LONG BILL AND WEBBED FEET. ADULTS HAVE A WHITE HEAD AND NECK, BROWNISH BLACK BREAST, AND SILVER GRAY UPPER PARTS. ELEVATION RANGE: VARIES FT.

COUNTIES: LA PAZ YUMA

HABITAT: COASTAL LAND AND ISLANDS

SUBSPECIES IS FOUND ON PACIFIC COAST AND IS ENDANGERED DUE TO PESTICIDES. IT IS AN UNCOMMON TRANSIENT IN ARIZONA ON LOWER COLORADO RIVER. INDIVIDUALS WANDER UP FROM MEXICO IN SUMMER AND FALL. NO BREEDING RECORDS IN ARIZONA.

NAME: **CACTUS FERRUGINOUS PYGMY-OWL**

GLAUCIDIUM BRASILIANUM CACTORUM

STATUS: ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: No CFR: 62 FR 10730, 3-10-97

DESCRIPTION: SMALL (APPROX. 7"), DIURNAL OWL REDDISH BROWN OVERALL WITH CREAM-COLORED BELLY STREAKED WITH REDDISH BROWN. SOME INDIVIDUALS ARE GRAYISH BROWN ELEVATION RANGE: <4000 FT.

COUNTIES: MARICOPA, YUMA, SANTA CRUZ, GRAHAM, GREENLEE, PIMA, PINAL, GILA, YAVAPAI

HABITAT: MATURE COTTONWOOD/WILLOW, MESQUITE BOSQUES, AND SONORAN DESERTSCRUB

RANGE LIMIT IN ARIZONA IS FROM NEW RIVER (NORTH) TO GILA BOX (EAST) TO CABEZA PRIETA MOUNTAINS (WEST). ONLY A FEW DOCUMENTED SITES WHERE THIS SPECIES PERSISTS ARE KNOWN, ADDITIONAL SURVEYS ARE NEEDED. LISTING EFFECTIVE APRIL 9, 1997.

NAME: **CALIFORNIA CONDOR**

GYMNOPS CALIFORNIANUS

STATUS: ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 32 FR 4001, 03-11-67

DESCRIPTION: VERY LARGE VULTURE (55 INCHES HEAD TO TAIL, WING=34, TAIL=16, TARSUS=4.25). HEAD AND UPPER PARTS OF NECK BARE, BILL YELLOW, CERE, HEAD, AND NECK YELLOWISH-RED, PLUMAGE GREY-BLACK. ELEVATION RANGE: VARIES FT.

COUNTIES, MOHAVE, COCONINO, NAVAJO COCHISE

HABITAT: HIGH DESERT CANYON LANDS, AND PLATEAUS

RECOVERY/REINTRODUCTION PROGRAM CURRENTLY EVALUATING THE FEASIBILITY OF REINTRODUCTION INTO ARIZONA BY 1996. NO LONGER OCCURS IN ARIZONA.

NAME: **MASKED BOBWHITE**

COLINUS VIRGINIANUS RIDGEWAYI

STATUS: ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 35 FR 4001, 03-11-1967; 35 FR 8495, 06-02-70

DESCRIPTION: MALES BRICK-RED BREAST AND BLACK HEAD AND THROAT. FEMALES ARE GENERALLY NONDESCRIPT BUT RESEMBLE OTHER RACES SUCH AS THE TEXAS

BOBWHITE.

ELEVATION

RANGE: 1000-4000 FT.

COUNTIES. PIMA

HABITAT: DESERT GRASSLANDS WITH DIVERSITY OF DENSE NATIVE GRASSES, FORBS AND BRUSH

SPECIES IS CLOSELY ASSOCIATED WITH ACACIA ANGUSTISSIMA. FORMERLY OCCURRED IN ALTAR AND SANTA CRUZ VALLEYS, AS WELL AS SONORA, MEXICO. PRESENTLY ONLY KNOWN FROM REINTRODUCED POPULATION ON BUENOS AIRES.

NAME: MEXICAN SPOTTED OWL

STRIX OCCIDENTALIS LUCIDA

STATUS: THREATENED
14678, 04-11-91

CRITICAL HABITAT: Yes RECOVERY PLAN: Yes CFR: 56 FR

DESCRIPTION: MEDIUM SIZED WITH DARK EYES AND NO EAR TUFTS. BROWNISH AND HEAVILY SPOTTED WITH WHITE OR BEIGE.

ELEVATION

RANGE: 4100-9000 FT.

COUNTIES. MOHAVE, COCONINO, NAVAJO, APACHE, YAVAPAI, GRAHAM, GREENLEE, COCHISE, SANTA CRUZ, PIMA, PINAL, GILA, MARICOPA

HABITAT: NESTS IN CANYONS AND DENSE FORESTS WITH MULTI-LAYERED FOLIAGE STRUCTURE

GENERALLY NESTS IN OLDER FORESTS OF MIXED CONIFER OR PONDEROSA PINE/GAMBEL OAK TYPE, IN CANYONS, AND USE VARIETY OF HABITATS FOR FORAGING. SITES WITH COOL MICROCLIMATES APPEAR TO BE OF IMPORTANCE PREFERRED.

NAME: NORTHERN APLOMADO FALCON

FALCO FEMORALIS SEPTENTRIONALIS

STATUS: ENDANGERED
6686, 01-25-86

CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 51 FR

DESCRIPTION: RUFIOUS UNDERPARTS, GRAY BACK, LONG BANDED TAIL, AND A DISTINCT BLACK AND WHITE FACIAL PATTERN. SMALLER THAN PEREGRINE LARGER THAN KESTREL. BREEDS BETWEEN MARCH- JUNE
ELEVATION

RANGE: 3500-9000 FT.

COUNTIES, COCHISE, SANTA CRUZ

HABITAT: GRASSLAND AND SAVANNAH

SPECIES FORMERLY NESTED IN SOUTHWESTERN US. NOW OCCURS AS AN ACCIDENTAL. GOOD HABITAT HAS LOW GROUND COVER AND MESQUITE OR YUCCA FOR NESTING PLATFORMS. CONTINUED USE OF PESTICIDES IN MEXICO ENDANGERS THIS SPECIES. NO RECENT CONFIRMED REPORTS FOR ARIZONA.

NAME: SOUTHWESTERN WILLOW FLYCATCHER

EMPIDONAX TRAILLII EXTIMUS

STATUS: ENDANGERED
10694. 02-27-95

CRITICAL HABITAT: Yes RECOVERY PLAN: No CFR: 60 FR

DESCRIPTION: SMALL PASSERINE (ABOUT 6") GRAYISH-GREEN BACK AND WINGS, WHITISH THROAT, LIGHT OLIVE-GRAY BREAST AND PALE YELLOWISH BELLY. TWO WINGBARS VISIBLE. EYE-RING FAINT OR ABSENT.
ELEVATION

RANGE: <8500 FT.

COUNTIES: YAVAPAI, GILA, MARICOPA, MOHAVE, COCONINO, NAVAJO, APACHE, PINAL, LA PAZ, GREENLEE, GRAHAM, YUMA, PIMA, COCHISE, SANTA CRUZ

HABITAT: COTTONWOOD/WILLOW & TAMARISK VEGETATION COMMUNITIES ALONG RIVERS & STREAMS

MIGRATORY RIPARIAN OBLIGATE SPECIES THAT OCCUPIES BREEDING HABITAT FROM LATE APRIL TO SEPTEMBER. DISTRIBUTION WITHIN ITS RANGE IS RESTRICTED TO RIPARIAN CORRIDORS. DIFFICULT TO DISTINGUISH FROM OTHER MEMBERS OF THE EMPIDONAX COMPLEX BY SIGHT ALONE. TRAINING SEMINAR REQUIRED FOR THOSE CONDUCTING FLYCATCHER SURVEYS.

NAME: WHOOPING CRANE

GRUS AMERICANA

STATUS. ENDANGERED CRITICAL HABITAT: YES (NO CRITICAL HABITAT IN ARIZONA)
RECOVERY PLAN: Yes CFR: 32 FR 4001, 03-11-1967; 43 FR 20938, 05-15-78

DESCRIPTION: TALLEST AMERICAN BIRD (UP TO 5 FEET) SNOWY WHITE, LONG NECK AND LONG BLACK WING TIPS, RED CROWN, AND BLACK WEDGE SHAPED PATCH OF TETHERS BEHIND ITS EYE. ELEVATION
RANGE: 4500 FT.

COUNTIES: COCHISE

HABITAT: MARSHES, PRAIRIES, RIVER BOTTOMS

BIRDS IN THE ROCKY MOUNTAIN POPULATION ARE OCCASIONAL VISITORS IN ARIZONA DURING MIGRATION. USUALLY NEAR WILCOX PLAYA.

NAME: YUMA CLAPPER RAIL

RALLUS LONGIROSTRIS YUMANENSIS

STATUS: ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: Yes CFR: 32 FR 4001, 03-11-67; 48 FR 34182, 07-27-83

DESCRIPTION: WATER BIRD WITH LONG LEGS AND SHORT TAIL. LONG SLENDER DECURVED BILL. MOTTLED BROWN ON GRAY ON ITS RUMP. FLANKS AND UNDERSIDES ARE DARK GRAY WITH NARROW VERTICAL STRIPES PRODUCING A BARRING EFFECT. ELEVATION
RANGE: <4500 FT.

COUNTIES: YUMA, LA PAZ, MARICOPA, PINAL, MOHAVE

HABITAT: FRESH WATER AND BRACKISH MARSHES

SPECIES IS ASSOCIATED WITH DENSE EMERGENT RIPARIAN VEGETATION. REQUIRES WET SUBSTRATE (MUDFLAT, SANDBAR) WITH DENSE HERBACEOUS OR WOODY VEGETATION FOR NESTING AND FORAGING. CHANNELIZATION AND MARSH DEVELOPMENT ARE PRIMARY SOURCES OF HABITAT LOSS.

NAME: SONORA TIGER SALAMANDER

AMBYSTOMA TIGRINUM STEBBINSI

STATUS. ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: No CFR: 62 FR 665, 01-06-97

DESCRIPTION: 2.6 TO 4 9" SNOUT-VENT LENGTH WITH LIGHT-COLORED BANDS ON A DARK BACKGROUND. AQUATIC LARVAE ARE UNIFORM DARK COLOR WITH PLUME-LIKE GILLS AND TAIL FINS. ELEVATION
RANGE: 4000-6300 FT.

COUNTIES. SANTA CRUZ, COCHISE

HABITAT: STOCK TANKS AND IMPOUNDED CIENEGAS IN SAN RAFAEL VALLEY, HUACHUCA MOUNTAINS

ALSO OCCURS IN THE FOOTHILLS OF THE EAST SLOPE OF THE PATAGONIA AND HUACHUCA MOUNTAINS. POPULATIONS ALSO ON FORT HUACHUCA.

NAME: **PARISH ALKALI GRASS**

PUCCINELLIA PARISHII

STATUS: PROPOSED ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: No CFR:

DESCRIPTION: A SMALL, BLUE-GREEN, ANNUAL GRASS. FLOWERING STEMS 1-8
INCHES TALL

ELEVATION RANGE: 3000-6000 FT.

COUNTIES: COCONINO, NAVAJO

HABITAT: MOIST SALINE SOILS

POTENTIALLY ANY SALINE SEEPS AND ASSOCIATED WETLANDS IN ARIZONA.

NAME: **FLAT-TAILED HORNED LIZARD**

PHRYNOSOMA MCALLII

STATUS: FORMERLY PROPOSED THREATENED

CRITICAL HABITAT: No RECOVERY PLAN:

No CFR: 58 FR 62624, 11-29-1993

DESCRIPTION: FLATTENED BODY DISTINGUISHED BY ITS DARK VERTEBRAL STRIPE AND LACK
OF EAR OPENINGS. TWO ROWS OF FRINGED SCALES ON EACH SIDE OF ITS BODY.
CRYPTIC IN COLOR GRAY TO LIGHT RUST & WHITE OR CREAM BELOW
(UNSPOTTED). PROMINENT UMBILICAL SCAR. ELEVATION RANGE: <2000 FT.

COUNTIES: YUMA

HABITAT: LOWER COLORADO RIVER VALLEY BIOME SUBDIVISION OF SONORAN DESERT

CREOSOTE AND WHITE BURSAGE VEGETATION COMMUNITIES WITHIN SANDY FLATS AND
VALLEYS. RANGE LIMITED TO THE EXTREME SOUTH WEST CORNER OF ARIZONA, PRIMARILY
WEST OF THE GILA AND TINAJAS ALTAS MOUNTAINS AND SOUTH OF THE GILA RIVER.

NAME: **SAN XAVIER TALUS SNAIL**

SONCRELLA EREMITA

STATUS: PROPOSED ENDANGERED CRITICAL HABITAT: No RECOVERY PLAN: No CFR: 56
FR 13691, 03-23-1994

DESCRIPTION: LESS THAN ONE INCH (AVE 19 MM), LIGHT BROWN, PILL SHAPED, DARK
STRIPE ENCIRCLES OUTER PERIMETER

ELEVATION RANGE: 3850 - 3920 FT.

COUNTIES: PIMA

HABITAT: LIMESTONE TALUS ON NORTH SIDE OF A SINGLE HILL.

NAME: **ACUNA CACTUS**

STATUS: CANDIDATE *ECHINOMASTUS ERECTOCENTRUS ACUNENSIS*

CRITICAL HABITAT: No RECOVERY PLAN: No CFR:

DESCRIPTION: <12 INCHES HIGH SPINE CLUSTERS BORNE ON TUBERCLES, EACH WITH
A GROOVE ON THE UPPER SURFACE. 2-3 CENTRAL SPINES AND 12
RADIAL SPINES. FLOWERS PINK TO PURPLE
ELEVATION

RANGE: 1300-2000 FT.

COUNTIES: PINAL, PIMA

HABITAT: WELL DRAINED KNOLLS AND GRAVEL RIDGES IN SONORAN DESERT SCRUB

IMMATURE PLANTS DISTINCTLY DIFFERENT FROM MATURE PLANTS. THEY ARE DISC-SHAPED
OR SPHERICAL AND HAVE NO CENTRAL SPINES UNTIL THEY ARE ABOUT 1.5 INCHES.
RADIAL SPINES ARE DIRTY WHITE WITH MAROON TIPS.

NAME: ARIZONA BUGBANE

CIMICIFUGA ARIZONICA

STATUS: CANDIDATE

CRITICAL HABITAT: No RECOVERY PLAN: No CFR:

DESCRIPTION: PERENNIAL HERB IN THE BUTTERCUP FAMILY UP TO 6-7 FEET TALL.
SMALL WHITE PETAL-LESS FLOWERS APPEAR IN JULY-AUGUST. FRUIT
A FOLLICLE THAT SPLITS OPEN ON ONE SIDE AS IT DRIES.
ELEVATION

RANGE: 5300-7000 FT.

COUNTIES: COCONINO, GILA

HABITAT: MOIST, LOAMY SOIL BETWEEN CONIFEROUS AND RIPARIAN ECOTONES.

RICH, FERTILE SOILS HIGH IN HUMUS CONTENT, DEEP SHADE, AND HIGH HUMIDITY
APPEARS TO BE PRIMARY HABITAT REQUIREMENTS FOR THIS SPECIES.

NAME: ARIZONA LEATHER FLOWER

CLEMATIS HIRSUTISSIMA ARIZONICA

STATUS: CANDIDATE

CRITICAL HABITAT: No RECOVERY PLAN: No CFR:

DESCRIPTION: A PERENNIAL IN THE BUTTERCUP FAMILY FROM 8-23 INCHES TALL
BLOOMS BEFORE SUMMER RAINS FLOWER: 4 PURPLISH SEALS FRUIT
BEARS LONG PLUMSE "TAIL".
ELEVATION

RANGE: 6800-6900 FT.

COUNTIES. COCONINO, APACHE

HABITAT: KAIBAB LIMESTONE SOILS IN SMALL COLONIES. REQUIRES SHADE FROM
PONDEROSA OR PINYON PINE STANDS

ENTIRE ELEVATION RANGE IS NOT YET UNDERSTOOD.

NAME: BLUMER'S DOCK

RUMEX ORTHONEURUS

STATUS: CANDIDATE

CRITICAL HABITAT: No RECOVERY PLAN: No CFR:

DESCRIPTION: LARGE LONG-LIVED PERENNIAL PLANT IN THE BUCKWHEAT FAMILY THAT CAN
REACH 1.2-2.0 METERS. LARGE BROAD, OVAL SEMI-SUCCULENT LEAVES
ARE CONSPICUOUS. CONSPICUOUS SECONDARY VEINS AT RIGHT ANGLES TO THE
MIDVEIN
ELEVATION RANGE: COUNTIES 0 FT.

COUNTIES. GILA, COCHISE

HABITAT: MID TO HIGH ELEVATION SPRINGS, STREAMS, & WETLANDS WITH MOIST ORGANIC SOILS
SHADED CANYONS

NAME: FICKEISEN PINCUSHION CACTUS

PEDIOCACTUS PEEBLESIANUS FICKEISENIAE

STATUS: CANDIDATE

CRITICAL HABITAT: No RECOVERY PLAN: No CFR:

DESCRIPTION: VERY SMALL (3 INCHES TALL- 1.5 INCHES DIAMETER) UNBRANCHED
CACTUS THAT RETREATS INTO GRAVELY SOILS AFTER FRUITING.
TUBERCLES FORM A SPIRAL PATTERN AROUND PLANT.
CENTRAL SPINE 3/8 INCH LONG FLOWERS CREAM/YELLOW
ELEVATION

RANGE. 4000-5000 FT.

COUNTIES: COCONINO, MOHAVE

HABITAT: EXPOSED LAYERS OF KAIBAB LIMESTONE ON CANYON MARGINS OR HILLS OF
NAVAJOAN DESERT

NAME: GENTRY INDIGO BUSH

DALEA TENTACULOIDES

STATUS: CANDIDATE CRITICAL HABITAT: No RECOVERY PLAN: No CFR:

DESCRIPTION: SHRUBBY PERENNIAL IN THE LEGUME FAMILY WITH NUMEROUS STEMS IN
OLDER PLANTS, UP TO 6-7 FEET TALL USUALLY LESS. FLOWER:
SMALL ROSE-PURPLE APPEAR IN APRIL-JUNE OR SEPT-OCT.
ELEVATION

RANGE: 4500 FT.

COUNTIES: SANTA CRUZ, PIMA

HABITAT: FLOODPLAIN TERRACES IN DRY CANYON RIPARIAN AREAS IN PARTIAL SHADE

NAME: GOODDING ONION

ALLIUM GOODDINGII

STATUS: CANDIDATE CRITICAL HABITAT: No RECOVERY PLAN: No CFR:

DESCRIPTION: PERENNIAL ONION WITH WIDER LEAVES THAN OTHER ARIZONA ONIONS,
FLOWERS RED-PURPLE WITH SIX PETALS ON A SCAPE TALLER THAN THE
LEAVES ELEVATION

RANGE: 7000-9400 FT.

COUNTIES: GREENLEE, APACHE, PIMA

HABITAT: MATURE FORESTS USUALLY ALONG NORTH-TRENDING DRAINAGE BOTTOMS IN
MIXED-CONIFER SPRUCE-FIR ZONES

NAME: KAIBAB PLAINS CACTUS

PEDIOCACTUS PARADINEI

STATUS: CANDIDATE CRITICAL HABITAT: No RECOVERY PLAN: No CFR:

DESCRIPTION: SMALL(1-2 INCHES TALL AND 1-2 INCHES WIDE) CACTUS. 4-6
CENTRAL SPINES HAIR-LIKE, DENSE, WHITE TO PALE GRAY NOT
DISTINGUISHABLE FROM RADIAL SPINES. FLOWER: WHITE OR PINK 1
INCH WIDE ELEVATION

RANGE: 5000-7000 FT,

COUNTIES: COCONINO

HABITAT: PINYON-JUNIPER WOODLAND OR SAGEBRUSH VALLEYS ON KAIBAB LIMESTONE
GRAVELS

NAME: LEMMON FLEABANE

ERIGERON LEMMONII

STATUS: CANDIDATE CRITICAL HABITAT: No RECOVERY PLAN: No CFR:

DESCRIPTION: A PROSTRATE PERENNIAL IN THE SUNFLOWER FAMILY. STEMS AND LEAVES ARE
DENSELY HAIRY. FLOWERS LOOK LIKE SMALL DELICATE DAISIES, WITH WHITE
TO LIGHT PURPLE OUTER PETALS AND YELLOW INNER PETALS.

ELEVATION RANGE: 1500-6000 FT.

COUNTIES: COCHISE

HABITAT: GROWS IN DENSE CLUMPS IN CREVICES, LEDGES, AND BOULDERS IN CANYON BOTTOMS IN
PINE-OAK WOODLAND

NAME: PARADOX MILK-VETCH

ASTRAGALUS HOLMGRENII

STATUS: CANDIDATE CRITICAL HABITAT: No RECOVERY PLAN: No CFR:

DESCRIPTION: DWARF PERENNIAL HERB. NO STEM LEAVES AND FLOWERS: PROSTRATE FROM
ROOT. FLOWERS PURPLE, SEEDS: CURVED, ELLIPTIC, AND HAVE BEAK AT THE
TIP. LEAVES: BLUE-GREEN BELOW AND YELLOWISH- GREEN ABOVE
ELEVATION RANGE: 2700-2800 FT.

COUNTIES: MOHAVE

HABITAT: JUST UNDER LIMESTONE RIDGES AND ALONG DRAWS IN GRAVELLY CLAY HILLS

NAME: **HUACHUCA SPRINGSNAIL**

PYRGULOPSIS THOMPSONI

STATUS: CANDIDATE CRITICAL HABITAT: No RECOVERY PLAN: No CFR:

DESCRIPTION: VERY SMALL (1.7-3.2 mm) CONICAL SHELL. IDENTIFICATION MUST BE
VERIFIED BY CHARACTERISTICS OF REPRODUCTIVE ORGANS.

ELEVATION RANGE. 4500-6000 FT.

COUNTIES: COCHISE, SANTA CRUZ

HABITAT: AQUATIC AREAS, SMALL SPRINGS WITH VEGETATION SLOW TO MODERATE FLOW.

INDIVIDUALS FOUND ON FIRM SUBSTANCES (ROOTS, WOOD, AND ROCKS)

NAME: **PAGE SPRINGSNAIL**

PYRGULOPSIS MORRISONI

STATUS: CANDIDATE CRITICAL HABITAT: No RECOVERY PLAN: No CFR:

DESCRIPTION: SMALL (<3mm) SNAIL WITH OVATE SHELL WITH FINE GROWTH LINES.

ELEVATION

RANGE. 3300-3600 FT.

COUNTIES: YAVAPAI

HABITAT: AQUATIC, SLOW OR STILL FRESHWATER USUALLY HEAD SPRINGS AND UPPER SECTION OF
OUTFLOWS

CAN BE FOUND ON FIRM SUBSTANCES LIKE ROCK, WOOD, OR AQUATIC VEGETATION.

NAME: **WET CANYON TALUS SNAIL**

SONORELLA MACROPHALLUS

STATUS: CANDIDATE CRITICAL HABITAT: No RECOVERY PLAN: No CFR:

DESCRIPTION: VERY SMALL (<1 INCH) LIGHT BROWN PILL-SHAPED SHELLS. BROWN STRIPE
ENCIRCLES OUTSIDE PERIMETER OF SHELL

ELEVATION

RANGE: 6050 FT.

COUNTIES: GRAHAM

HABITAT: TALUS SLOPES IN HEAVILY VEGETATED AREA OF WET CANYON (PINALENO MOUNTAINS)

TALUS MUST BE DEEP AND LARGELY FREE OF EXCESS SEDIMENTATION WITH STABLE MOISTURE
CONDITIONS. THIS SPECIES CANNOT BE DISTINGUISHED FROM OTHER SONORELLA SPECIES IN THE
FIELD.

NAME: **MOUNTAIN PLOVER** *CHARADRIUS MONTANUS*

STATUS: CANDIDATE CRITICAL HABITAT: No RECOVERY PLAN: No CFR:

DESCRIPTION:

ELEVATION

RANGE: 0 FT.

COUNTIES: YUMA, SANTA CRUZ, PIMA, COCHISE

HABITAT:

NAME: **CHIRICAHUA LEOPARD FROG**

RANA CHIRICAHUENSIS

STATUS: CANDIDATE CRITICAL HABITAT: No RECOVERY PLAN: No CFR: 59 FR
53996

DESCRIPTION: CREAM COLORED TUBERCLES (spots) ON A DARK BACKGROUND ON THE REAR OF THE THIGH, DORSOLATERAL FOLDS THAT ARE INTERRUPTED AND DEFLECTED MEDIALY, AND A CALL GIVEN OUT OF WATER DISTINGUISH THIS SPOTTED FROG FROM OTHER LEOPARD
ELEVATION RANGE., 3000-8300 FT.

COUNTIES: SANTA CRUZ, APACHE, GILA, PIMA, COCHISE, GREENLEE, GRAHAM, YAVAPAI, COCONINO, NAVAJO

HABITAT: STREAMS, RIVERS, BACKWATERS, PONDS, AND STOCK TANKS THAT ARE FREE FROM INTRODUCED FISH AND BULLFROGS

REQUIRE PERMANENT OR NEARLY PERMANENT WATER SOURCES. POPULATIONS NORTH OF THE GILA RIVER ARE THOUGHT TO BE CLOSELY-RELATED, BUT DISTINCT, UNDESCRIBED SPECIES.

NAME: **RAMSEY CANYON LEOPARD FROG**

RANA SUBAQUAVOCALIS

STATUS: CANDIDATE CRITICAL HABITAT: No RECOVERY PLAN: No CFR: 59 FR 58996

DESCRIPTION: LARGE FROG WITH CREAM-COLORED TUBERCLES (spots) ON A DARK BACKGROUND ON THE REAR OF THE THIGH. TYPICALLY SPOTTED AND GREEN. CALL GIVEN UNDERWATER
ELEVATION RANGE: 5000-5700 FT.

COUNTIES: COCHISE

HABITAT: ARTIFICIAL PONDS IN TINKER, BROWN, AND RAMSEY CANYONS ON THE EAST SLOPE OF THE HUACHUCA MOUNTAINS.

NAME: **SONOYTA MUD TURTLE**

KINOSTERNON SONORIENSIS LONGI FEMORALE

STATUS: CANDIDATE CRITICAL HABITAT: NO RECOVERY PLAN: NO CFR 62 FR 49397, 9-19-97

NAME: **GILA CHUB**

GILA INTERMEDIA

STATUS: CANDIDATE CRITICAL HABITAT: NO RECOVERY PLAN: NO CFR: 62 FR 49397, 9-19-97



U.S. Department of Labor

Occupational Safety & Health Administration

Mine Safety and Health Administration - Interagency Agreement Between the Mine Safety and Health Administration and OSHA

- AGREEMENT WITH: Mine Safety and Health Administration
- SUBJECT: Interagency Agreement Between the Mine Safety and Health Administration and OSHA

INTERAGENCY AGREEMENT BETWEEN THE MINE SAFETY AND HEALTH ADMINISTRATION U.S. DEPARTMENT OF LABOR

AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION U.S. DEPARTMENT OF LABOR

The Mine Safety and Health Administration (MSHA), U.S. Department of Labor, and the Occupational Safety and Health Administration (OSHA), U.S. Department of Labor, have entered into this agreement to delineate certain areas of authority and responsibility regarding administration of laws in enforcement of administration, provide a procedure for consultation, general operational procedures, and provide for coordination between MSHA and OSHA in all areas of common interest.

Appendix 7 - MSHA and OSHA Interagency Agreement

1. The Federal Mine Safety and Health Act of 1970, Pub. L. 91-171, 84 Stat. 1011, 30 USC 811-818, (Mine Act), authorizes the Secretary of Labor to promulgate and enforce safety and health standards regarding working conditions of employees engaged in underground and surface mineral extraction industry, related operations, and preparation and milling of the minerals extracted.

2. The Occupational Safety and Health Act (OSHA Act) gives the Secretary of Labor authority over all working conditions of employees engaged in business affecting commerce except those conditions with respect to which other Federal agencies exercise statutory authority to prescribe or enforce regulations affecting occupational safety or health. The OSHA Act also provides that States may operate their own occupational safety and health programs under a plan approved by the Secretary.

3. This agreement is entered into to set forth the general principle and specific purposes which will guide MSHA and OSHA. The agreement will also serve to guide in cooperation and compliance in the official matters in determining the jurisdiction of the two agencies involved. The general principle is that as to unsafe and unhealthy working conditions existing either in mining operations, the Secretary will apply the provisions of the Mine Act and coordinate jurisdictional demands to eliminate these conditions.

However, when the provisions of the Mine Act either do not apply or do not otherwise apply to occupational safety and health hazards as either or both agencies, respectively, are authorized or where there is statutory authority under the Mine Act for MSHA to enforce its authority applicable to particular working conditions in such cases, such that OSHA will be applied to those working conditions. Also, if an employee is engaged in the mining operations or the more extensive operations and such employee is in the mining operations or the more extensive operations for purposes of the Mine Act, the OSHA Act will be applied to such employee when the application of the OSHA Act would result in a more protective health and safety standard than that of the Mine Act.

Appendix 7 - MSHA and OSHA Interagency Agreement



U.S. Department of Labor

Occupational Safety & Health Administration

Mine Safety and Health Administration - Interagency Agreement Between the Mine Safety and Health Administration and OSHA.

- **AGREEMENT WITH :** Mine Safety and Health Administration
- **SUBJECT :** Interagency Agreement Between the Mine Safety and Health Administration and OSHA.

INTERAGENCY AGREEMENT BETWEEN THE MINE SAFETY AND HEALTH ADMINISTRATION U.S. DEPARTMENT OF LABOR AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION U.S. DEPARTMENT OF LABOR

The Mine Safety and Health Administration (MSHA), U.S. Department of Labor, and the Occupational Safety and Health Administration (OSHA), U.S. Department of Labor, have entered into this agreement to delineate certain areas of authority, set forth factors regarding determinations relating to convenience of administration, provide a procedure for determining general jurisdictional questions, and provide for coordination between MSHA and OSHA in all areas of mutual interest.

A. AUTHORITY AND PRINCIPLE

1. The Federal Mine Safety and Health Act of 1977, Pub. L. 91-173 as amended by Pub. L. 95-164 (Mine Act), authorizes the Secretary of Labor to promulgate and enforce safety and health standards regarding working conditions of employees engaged in underground and surface mineral extraction (mining), related operations, and preparation and milling of the minerals extracted.
2. The Occupational Safety and Health Act of 1970 (OSHAct) gives the Secretary of Labor authority over all working conditions of employees engaged in business affecting commerce except those conditions with respect to which other Federal agencies exercise statutory authority to prescribe or enforce regulations affecting occupational safety or health. The OSHAct also provides that States may operate their own occupational safety and health programs under a plan approved by the Secretary.
3. This agreement is entered into to set forth the general principle and specific procedures which will guide MSHA and OSHA. The agreement will also serve as guidance to employers and employees in the affected industries in determining the jurisdiction of the two statutes involved. The general principle is that as to unsafe and unhealthful working conditions on mine sites and in milling operations, the Secretary will apply the provision of the Mine Act and standards promulgated thereunder to eliminate those conditions.

However, where the provisions of the Mine Act either do not cover or do not otherwise apply to occupational safety and health hazards on mine or mill sites (e.g., hospitals on mine sites) or where there is statutory coverage under the Mine Act but there exist no MSHA standards applicable to particular working conditions on such sites, then the OSHAct will be applied to those working conditions. Also, if an employer has control of the working conditions on the mine site or milling operation and such employer is neither a mine operator nor an independent contractor subject to the Mine Act, the OSHAct may be applied to such an employer where the application of the OSHAct would, in such a case, provide a more effective remedy than citing a

mine operator or an independent contractor subject to the Mine Act who does not, in such circumstances, have direct control over the working conditions.

B. CLARIFICATION OF AUTHORITY

1. Section 4 of the Mine Act gives MSHA jurisdiction over each coal or other mine and each operator of such mine. Section 3(d) defines "operator" and includes in that definition independent contractors performing construction at mines.

2. Section 3(h)(1) of the Mine Act gives MSHA jurisdiction over lands, structures, facilities, equipment, and other property used in, to be used in, or resulting from mineral extraction or used in or to be used in mineral milling. This includes the authority to regulate the construction of such facilities, structures and other property. Further, Section 3(h)(1) directs the Secretary of Labor, in making a determination of what constitutes mineral milling, to give due consideration to the convenience of administration resulting from the delegation to one Assistant Secretary of all authority with respect to the health and safety of miners employed at one physical establishment.

3. Appendix A provides more detailed descriptions of the kinds of operations included in mining and milling and the kinds of ancillary operations over which OSHA has authority. Notwithstanding the clarification of authority provided by Appendix A, there will remain areas of uncertainty regarding the application of the Mine Act, especially in operations near the termination of the milling cycle and the beginning of the manufacturing cycle.

4. Under section 3(h)(1), the scope of the term milling may be expanded to apply to mineral product manufacturing processes where these processes are related, technologically or geographically, to milling. Or, the term milling may be narrowed to exclude from the scope of the term processes listed in Appendix A where such processes are unrelated, technologically, or geographically, to mineral milling. Determinations shall be made by agreements between MSHA and OSHA.

5. The following factors, among others, shall be considered in making determinations of what constitutes mineral milling under section 3(h)(1) and whether a physical establishment is subject to either authority by MSHA or OSHA: the processes conducted at the facility, the relation of all processes at the facility to each other, the number of individuals employed in each process, and the expertise and enforcement capability of each agency with respect to the safety and health hazards associated with all the processes conducted at the facility. The consideration of these factors will reflect Congress' intention that doubts be resolved in favor of inclusion of a facility within the coverage of the Mine Act.

6. Pursuant to the authority in section 3(h)(1) to determine what constitutes mineral milling considering convenience of administration, the following jurisdictional determinations are made:

a. MSHA jurisdiction includes salt processing facilities on mine property; electrolytic plants where the plants are an integral part of milling operations; stone cutting and stone sawing operations on mine property where such operations do not occur in a stone polishing or finishing plant; and alumina and cement plants.

b. OSHA jurisdiction includes the following, whether or not located on mine property: brick, clay pipe and refractory plants; ceramic plants; fertilizer product operations; concrete batch, asphalt batch, and not mix plants; smelters and refineries. OSHA jurisdiction also includes salt and cement distribution terminals not located on mine property, and milling operations associated with gypsum board plants not located on mine property.

7. "Borrow Pits" are subject to OSHA jurisdiction except those borrow pits located on mine property or related to mining. (For example, a borrow pit used to build a road or construct a surface facility on mine property is subject to MSHA jurisdiction). "Borrow pit" means an area of land where the overburden, consisting of unconsolidated rock, glacial debris, other earth material

overlying bedrock is extracted from the surface. Extraction occurs on a one-time only basis or only intermittently as need occurs, for use as fill materials by the extracting party in the form in which it is extracted. No milling is involved, except for the use of a scalping screen to remove large rocks, wood and trash. The material is used by the extracting party more for its bulk than its intrinsic qualities on land which is relatively near the borrow pit.

8. When any question of jurisdiction between MSHA and OSHA arises, the appropriate MSHA District Manager and OSHA Regional Administrator or OSHA State Designee in those States with approved plans shall attempt to resolve it at the local level in accordance with this Memorandum and existing law and policy. Jurisdictional questions that can not be decided at the local level shall be promptly transmitted to the respective National Offices which will attempt to resolve the matter. If unresolved, the matter shall be referred to the Secretary of Labor for decision.

C. ENFORCEMENT PROCEDURES

In the interest of administrative convenience and the efficient use of resources the agencies agree to the following enforcement procedures:

1. When OSHA receives information concerning unsafe or unhealthful working conditions in an area for which MSHA has authority for employee safety and health, OSHA will forward that information to MSHA.
2. When MSHA receives information regarding a possible unsafe or unhealthful condition in an area for which MSHA has authority and determines that such a condition exists but that none of the Mine Act's provisions with respect to imminent danger authority or any enforceable standards issued thereunder provide an appropriate remedy, then MSHA will refer the matter to OSHA for appropriate action under the authority of the OSHA Act.
3. When MSHA receives information regarding unsafe or unhealthful working conditions in an area for which OSHA has authority for employee safety and health, MSHA will forward that information to OSHA for appropriate action.
4. Each agency agrees to notify the other of the disposition of enforcement matters forwarded to it for appropriate action.
5. OSHA will not conduct general inspections of mine or mill sites except with respect to those areas set forth in this Agreement and its Appendix A.

D. INTERAGENCY COORDINATION

1. The Office of Legislative and Interagency Affairs in OSHA and the Office of the Assistant Secretary in MSHA shall serve as liaison points to facilitate communication and cooperation between the participating organizations.
2. MSHA and OSHA will endeavor to develop compatible safety and health standards, regulations, and policies with respect to the mutual goals of the two organizations including joint rulemaking, where appropriate. This interagency coordination may also include cooperative training, shared use of facilities, and technical assistance.

E. SUBAGREEMENTS

Subagreements to accomplish the purposes set by this agreement may be developed and modified, as deemed necessary, by OSHA and MSHA. Such subagreements will include specific provisions for detailing the coordination between the agencies.

F. PERIOD OF AGREEMENT

This Interagency Agreement shall continue in effect unless terminated by mutual consent of both parties or terminated by either party upon thirty (30) days advance written notice to the other and approved by the Secretary in either case.

This agreement will become effective on the date of the last signature and it supersedes the Memorandum of Understanding between OSHA and MESA dated April 22, 1974.

Mine Safety and Health Administration
Assistant Secretary of Labor
for Mine Safety and Health
Dated: March 29, 1979

Occupational Safety and Health Administration
Assistant Secretary of Labor
for Occupational Safety and Health
Dated: March 29, 1979

Approved:

Secretary of Labor
Dated: March 29, 1979

(more)

APPENDIX A

Definitions:

"Coal or other mine" is defined in the Mine Act as:

"(A) an area of land from which minerals are extracted in nonliquid form or, if in liquid form, are extracted with workers underground, (B) private ways and roads appurtenant to such area, and (C) lands, excavations, underground passageways, shafts, slopes, tunnels and workings, structures, facilities, equipment, machines, tools, or other property including impoundments, retention dams, and tailing ponds, on the surface or underground, used in, or to be used in, or resulting from, the work of extracting such minerals from their natural deposits in nonliquid form, or if in liquid form with workers underground, or used in, or to be used in, the milling of such minerals, or the work of preparing coal or other minerals, and includes custom coal preparation facilities."

"Miner" is defined in the Mine Act as:

"Any individual working in a coal or other mine."

"Operator" is defined in the Mine Act as:

"Any owner, lessee, or other person who operates, controls, or supervises a coal or other mine or any independent contractor performing services or construction at such mine."

"Mining and Milling":

Mining has been defined as the science, technique, and business of mineral discovery and exploitation. It entrails such work as directed to the severence of minerals from the natural deposits by methods of underground excavations, opencast work, quarrying, hydraulicking and alluvial dredging. Minerals so excavated usually required upgrading processes to effect a separation of the valuable minerals from the gangue constituents of the material mined. This latter process is usually termed "milling" and is made up of numerous procedures which are accomplished with and through many types of equipment and techniques.

Milling is the art of treating the crude crust of the earth to produce therefrom the primary consumer derviatives. The essential operation in all such processes is separation of one or more valuable desired constituents of the crude from the undesired contaminants with which it is associated.

A CRUDE is any mixture of minerals in the form in which it occurs in the earth's crust. An ORE is a solid crude containing valuable constituents in such amounts as to constitute a promise of possible profit in extraction, treatment, and sale. The valuable constituents of an ore are ordinarily called valuable minerals, or often just minerals; the associated worthless material is called gangue.

In some ores the mineral is in the chemical state in which it is desired by primary consumers, e.g., graphite, sulphur, asbestos, talc, garnet. In fact, this is true of the majority of nonmetallic minerals. In metallic ores, however, the valuable minerals in their natural state are rarely the product desired by the consumer, and chemical treatment of such minerals is a necessary step in the process of beneficiation. The end products are usually the result of concentration by the methods of ore dressing (milling) followed by further concentration through metallurgical processes. The valuable produce of the oredressing treatment is called Concentrate; the discarded waste is Tailing.*

Specific Examples of MSHA Authority

Mining-MSHA

Following is a list indicating mining operations and minerals for which MSHA has authority to regulate.

Mining Operations

Underground Mining

Open Pit Mining

Quarrying

*Preface, p.v., Handbook of Mineral Dressing, Arthur P. Taggart, Second Printing, March 1947, John Wiley and Sons, Inc.

Solution Mining (Precipitate & Leaching)

Dredging (When the primary purpose of the dredging operation is to recover metal or nonmetallic minerals for milling and/or sale or use.)

Hydraulicking

Ponds - Brine Evaporation

Auger Mining

Minerals

Coal

Metals:

(Included but not limited to)

Alumina
Antimony
Bauxite
Beryl
Bismuth
Chrome
Cobalt

Nonmetals

(Included but not limited to)

Abrasives
Aplite
Asbestos
Barite
Baron
Bromine
Calcium Chloride

Copper
Gold
Iron
Lead
Manganese
Mercury
Molybdenum
Nickel
Rare Earths
Silver
Titanium
Tungsten
Uranium
Vanadium
Zinc
Zirconium
Magnesite
Salt
Shale
Sodium Compounds
Sulfur
Talc, Soapstone, and
Pyrophllite
Vermiculite
Wollastonite

Clay
Mica
Mineral Pigments
Oil Shale
Peat
Perlite
Potash
Pumice
Potash Rock
Diatomite
Feldspar
Fluorspar
Gilsonite
Graphite
Gypsum
Kyanite

Subgroups of Nonmetals

(Sand and Gravel, and Crushed and Dimension Stone Industries)

Sand
Gravel
Cement
Gabbro
Gneiss
Lime
Limestone

Marble
Native Asphalt
(impregnated stone & sand)
Quartzite
Schist
Slate
Taprock or Diabase

Milling - MSHA Authority

Following is a list with general definitions of milling processes for which MSHA has authority to regulate subject to Paragraph B6 of the Agreement. Milling consists of one or more of the following processes: crushing, grinding, pulverizing, sizing, concentrating, washing, drying, roasting, pelletizing, sintering, evaporating, calcining, kiln treatment, sawing and cutting stone, heat expansion, retorting (mercury), leaching, and briquetting.

Crushing

Crushing is the process used to reduce the size of mined materials into smaller, relatively coarse particles. Crushing may be done in one or more stages, usually preparatory for the sequential stage of grinding, when concentration of ore is involved.

Grinding

Grinding is the process of reducing the size of a mined product into relatively fine particles.

Pulverizing

Pulverizing is the process whereby mined products are reduced to fine particles, such as to dust or powder size.

Sizing

Sizing is the process of separating particles of mixed sizes into groups of particles of all the same size, or into groups in which particles range between maximum and minimum sizes.

Concentrating

Concentrating is the process of separating and accumulating economic minerals from gangue, or the upgrading of ore or minerals.

Washing

Washing is the process of cleaning mineral products by the buoyant action of flowing water.

Drying

Drying is the process of removing uncombined water from mineral products, ores, or concentrates, for example, by the application of heat, in air-actuated vacuum type filters, or by pressure type equipment.

Roasting

Roasting is the process of applying heat to mineral products to change their physical or chemical qualities for the purpose of improving their amenability to other milling processes.

Pelletizing

Pelletizing is the process in which finely divided material is rolled in a drum, cone, or an inclined disk so that the particles cling together and roll up into small spherical pellets. This process is applicable to milling only when accomplished in relation to, and as an integral part of, other milling processes.

Sintering

Sintering is the process of agglomerating small particles to form larger particles, cakes or masses, usually by bringing together constituents through the application of heat at temperatures below the melting point.

This process is applicable to milling only when accomplished in relation to, and as an integral part of, other milling processes.

Evaporating

Evaporating is the process of upgrading or concentrating soluble salts from naturally occurring, or other brines, by causing uncombined water to be removed by application of solar or other heat.

Calcining

Calcining is the process of applying heat to mineral materials to upgrade them by driving off volatile chemically combined components and effecting physical changes.

This process is applicable to milling only when accomplished in relation to, and as an integral part of, other milling processes.

Kiln Treatment

Kiln Treatment is the process of roasting, calcining, drying, evaporating, and otherwise upgrading

mineral products through the application of heat.

This process is applicable to milling only when accomplished in relation to, and as an integral part of, other milling processes.

Sawing and Cutting Stone

Sawing and cutting stone is the process of reducing quarried stone to smaller sizes at the quarry site when the sawing and cutting is not associated with polishing or finishing.

Heat Expansion

Heat expansion is a process for upgrading material by sudden heating of the substance in a rotary kiln or sinter hearth to cause the material to bloat or expand to produce a lighter material per unit of volume.

Retorting

Retorting is a process usually performed at certain mine sites, and is accomplished by heating the crushed material in a closed retort to volatilize the metal, material or hydrocarbon which is then condensed and recovered as upgraded metal, material or hydrocarbon.

Leaching

Leaching is the process by which a soluble metallic compound is removed from a mineral by selectively dissolving it in a suitable solvent, such as water, sulfuric acid, hydrochloric acid, cyanide, or other solvent, to make the compound amenable to further milling processes.

Briguetting

Briquetting is a process by which iron ore, or other pulverized mineral commodities, are bound together into briquettes, under pressure, with or without a binding agent, and thus made conveniently available for further processing.

MSHA Authority Ends - OSHA Authority Begins

Subject to Paragraph B.5. of the Agreement, the following are types of operations which may be on or contiguous to mining and/or milling operations listed above, over which MSHA does not have authority to prescribe and enforce employee safety and health standards, and over which OSHA has full authority, under the Act, to prescribe and enforce safety and health standards regarding working conditions of employees.

OSHA regulatory authority commences as indicated in the following types of operations:

Gypsum Board Plant

If the plant is located on mine property, commences at the point when milling, as defined, is completed, and the gypsum and other materials are combined to enter the sequential processes necessary to produce gypsum board. If not located on mine property, OSHA has authority over entire plant.

Brick, Clay Pipe and Refractory Plants

Commences after arrival of raw materials at the plant stockpile.

Ceramic Plant

Commences after arrival of the clay and other additives at the plant stockpile.

Fertilizer Products

Commences at the point when milling, as defined, is completed, and two or more raw materials are combined to produce another product. Note that a "kiln", as it relates to these products for roasting and drying, is considered to be within the scope of the milling definition.

Asphalt-Mixing Plant

Commences after arrival of sand and gravel or aggregate at the plant stockpile.

Concrete Ready-Mix or Batch Plants

Commences after arrival of sand and gravel or aggregate at the plant stockpile.

Custom Stone Finishing

Commences at the point when milling, as defined, is completed, and the stone is polished, engraved, or otherwise processed to obtain a finished product and includes sawing and cutting when associated with polishing and finishing.

Smelting

Commences at the point when milling, as defined, is completed, and metallic ores or concentrates are blended with other materials and are thermally processed to produce metal.

Electrowinning

Commences at the point when milling, as defined, is completed, and metals are recovered by means of electrochemical processes.

Salt and cement distribution terminals not located on mine property.

Refining

Commences at the point when milling, as defined, is completed, and material enters the sequential processes to produce a product of higher purity.

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

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